DOCUMENT RESUME

ED 055 250 24 VT 014 127

AUTHOR	Ornstein, Michael D.
TITLE	Entry into the American Labor Force.
INSTITUTION	Johns Hopkins Univ., Baltimore, Md. Center for the Study of Social Organization of Schools.
SPONS AGENCY	Manpower Administration (DOL), Washington, D.C.; Office of Education (DHEW), Washington, D.C.
BUREAU NO	BR-6-1610
PUB DATE	Sep 71
GRANT	OEG-2-7-061610-0207
NOTE	470p.
EDRS PRICE	MF-$0.65 HC-$16.45
DESCRIPTORS	*Academic Achievement; Biographical Inventories; Comparative Analysis; Employment Experience; Entry Workers; *Family Background; *Job Tenure; Negroes; *Occupational Mobility; *Racial Differences; Salary Differentials; Social Status; Success Factors; Wages
IDENTIFIERS	*Labor Force Entry

ABSTRACT

This analysis of entry into the labor force by American men between the ages of 30 and 39 was based on a set of about 1,600 retrospective life history interviews, approximately half from whites and half from blacks. At the time of entry the mean level of whites' education was higher than that of blacks and this was translated into jobs with higher prestige for the whites. When education was held constant there was little difference between the first job wages of whites and blacks. The only race differences at this early point were among men with very high levels of education, where whites had significantly better jobs. The social class of a respondent's family strongly influenced his level of education but did not affect the jobs he obtained. In the 8 years after entry, the gap between whites and blacks spread to the lower levels of education. The tasks men performed were largely based on their levels of education, but their wages came increasingly to be dependent on experiential factors, so men with limited amounts of education could experience considerable wage mobility. The first jobs obtained after entry exerted a unique and continuing influence on later occupational mobility. (Author)

BR 6-1610
PA 24
VT

Center for Social Organization of Schools

ED055250

REPORT NO. 113

SEPTEMBER, 1971

ENTRY INTO THE AMERICAN LABOR FORCE

MICHAEL D. ORNSTEIN

The Johns Hopkins University

VT014127

STAFF

John L. Holland, Director

James M.McPartland, Assistant Director

Virginia Bailey
Thelma Baldwin
Zahava D. Blum
Judith P. Clark
James S. Coleman
David DeVries
Keith Edwards
Gail Fennessey
James Fennessey
Jean Finnegan
Ellen Greenberger
Rubie Harris
Edward J. Harsch
Robert J. Hogan
John H. Hollifield
Nancy L. Karweit
Steven Kidder
Hao-Mei Kuo
Samuel Livingston
Edward L. McDill
Rebecca J. Muraro
Jeanne O'Connor
Peter H. Rossi
Leslie Schnuelle
Aage B. Sørensen
Julian C. Stanley
Diana F. Ward
Phyllis K. Wilson

ED055250

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ENTRY INTO THE AMERICAN LABOR FORCE

Grant No. OEG-2-7-061610-0207

Project No. 61610-02-05

Michael D. Ornstein

Report No. 113

September, 1971

The material in this project was prepared under Grant No. 91-24-71-01 from the Manpower Administration, U.S. Department of Labor, under the authority of title I of the Manpower Development and Training Act of 1962, as amended. Researchers undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment. Therefore, points of view or opinions stated in this document do not necessarily represent the official position or policy of the Department of Labor.

Published by the Center for Social Organization of Schools, supported in part as a research and development center by funds from the United States Office of Education, Department of Health, Education, and Welfare. The opinions expressed in this publication do not necessarily reflect the position or policy of the Office of Education, and no official endorsement by the Office of Education should be inferred.

The Johns Hopkins University

Baltimore, Maryland

INTRODUCTORY STATEMENT

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through five programs to achieve its objectives. The Academic Games program has developed simulation games for use in the classroom, and is studying the processes through which games teach and evaluating the effects of games on student learning. The Social Accounts program is examining how a student's education affects his actual occupational attainment, and how education results in different vocational outcomes for blacks and whites. The Talents and Competencies program is studying the effects of educational experience on a wide range of human talents, competencies and personal dispositions, in order to formulate--and research--important educational goals other than traditional academic achievement. The School Organization program is currently concerned with the effect of student participation in social and educational decision making, the structure of competition and cooperation, formal reward systems, ability-grouping in schools, and effects of school quality. The Careers and Curricula program bases its work upon a theory of career development. It has developed a self-administered vocational guidance device to promote vocational development and to foster satisfying curricular decisions for high school, college, and adult populations.

This report, part of the Social Accounts program, analyzes entry into the labor force by a cohort of American men between the ages of 30 and 39.

TABLE OF CONTENTS

Page

ABSTRACT.. i

ACKNOWLEDGEMENTS................................ iii

SUMMARY... v

CHAPTER

I. INTRODUCTION................................. 1

Previous Research on Entry into the Labor Force.... 3

Criticism of the Literature...................... 9

Research Framework............................... 11

Descriptive Themes............................... 12

II. RESEARCH STRATEGY............................ 14

Description of the Data.......................... 14

The Definition of a Job.......................... 25

Race... 30

Industry of Jobs................................. 31

The Means of Finding Jobs........................ 32

Marital Status................................... 34

Moving... 35

Educational Attainment........................... 36

Family Background Variables...................... 39

Limits of This Analysis.......................... 41

Multivariate Analytic Techniques................. 44

The Definition of Entry.......................... 50

CHAPTER Page

III. THE FIRST JOB AFTER ENTRY INTO THE LABOR FORCE..... 52
Educational Attainment and Age at Entry............ 53
Quality of the First Job.......................... 57
Finding the First Job............................. 66
The Duration of the First Job..................... 71
Finding a First Job in the Military............... 74
Region Where Entry Takes Place.................... 79
Means of Finding the First Job.................... 82
The Industry of the First Job..................... 88
Moving.. 95
Marital Status.................................... 100
Rewards During the First Job...................... 107
Summary... 113

IV. THE NEXT TWO YEARS.................................. 117
Two Methodological Points......................... 119
The Military, Prestige Scores, and Wages.......... 121
The Numbers that Changed Jobs..................... 130
The Effects of Race and Education One and Two Years After Entry.................................. 137
Other Variables................................... 145
The Effect of the Industry of the First Job After Entry.. 147
The Industry of the Jobs Held One and Two Years After Entry...................................... 153
The Means of Finding the Jobs Held One and Two Years After Entry...................................... 160
Marital Status One and Two Years After Entry....... 166

CHAPTER Page

V. JOBS BEFORE ENTRY.................................. 172

Method... 173

Numbers of Full-Time Jobs Before Entry............. 177

Numbers of Part-Time Jobs Before Entry............. 188

The Quality of Full-Time Jobs Held Before Entry.... 198

The Quality of Part-Time Jobs Before Entry......... 209

Summary.. 215

VI. A MULTIVARIATE ANALYSIS OF THE FIRST TWO YEARS..... 217

Educational Attainment at Entry.................... 218

Path Analysis.. 223

The Prestige Path Analysis......................... 228

Wage Path Analysis................................. 233

Summary of the Path Analyses...................... 236

Regression Analysis................................ 238

The Occupational Prestige Score of the First Job... 244

The Starting Wage of the First Job After Entry..... 256

Variance Later in the Entry Period................. 265

Family Background Variables........................ 275

Jobs Before Entry.................................. 279

Educational Attainment............................. 283

Military Service................................... 292

Marital Status..................................... 295

The Means of Finding Jobs.......................... 296

The Effect of Industry............................. 300

Summary.. 304

CHAPTER Page

VII. WHY MEN CHANGE JOBS.............................. 308

Is Job Duration an Individual Variable?........... 310

Prediction of the Number of Jobs Held During a Fixed Period of Time After Entry............. 314

The Effect of Changing Jobs on Prestige Scores and Wages in the First Two Years................. 319

Predictors of Job Durations....................... 327

Educational Attainment at Entry................... 336

Age at Entry...................................... 338

Quality of the First Job After Entry.............. 339

Family Factors.................................... 342

Circumstances of Leaving the First Job............ 344

Circumstances of Finding the Second Job........... 346

Unemployment Between the Two First Jobs........... 348

Military Service as a Second Job.................. 348

Changes in Wages and Prestige Between the End of the First and the Start of the Second Job..... 350

Ninety Percent of the Variance.................... 354

Summary... 357

VIII. ENTRY AND CAREERS.............................. 359

Which Outcome?.................................... 360

Education Eight Years After Entry................. 362

Average Prestige Scores and Wages................. 368

The Cost of Being Black, Eight Years After Entry... 373

Numbers of Jobs Held in These Eight Years......... 376

Military Service in the Eight Years............... 380

Prediction of the Change in Educational Attainment. 386

CHAPTER Page

The Effect of Entry Jobs on Occupational Prestige and Wages Eight Years Later.................. 391

Many Variables: The Brute Force Approach........... 397

Summary.................................... 413

IX. CONCLUSIONS.................................. 416

Settling in to Work............................ 416

The Differences Between Blacks and Whites.......... 417

Education, Occupational Prestige and Wages......... 421

Changing Jobs.................................. 422

Other Variables................................ 423

Further Research............................... 424

APPENDIX A THE QUESTIONNAIRE

ABSTRACT

The analysis of entry into the labor force by American men between the ages of 30 and 39 was based on a set of about sixteen hundred retrospective life history interviews, approximately half from whites and half from blacks. A man was defined to have entered the labor force at the first point at which he was not enrolled in full-time schooling for a period of more than sixteen months. A detailed examination of the first job after entry and of the jobs held one and two years after entry was carried out.

At the time of entry the mean level of whites' education was higher than that of blacks and this was translated into jobs with higher prestige for the whites. When education was held constant there was little difference between the first job wages of whites and blacks. The only race differences at this early point were among men with very high levels of education, where whites had significantly better jobs. The industry of the first job, and to a lesser extent the manner in which it was obtained and pre-entry job experience, played some part in determining the quality of the first job. The social class of a respondent's family strongly influenced his level of education but did not carry over beyond that to affect the jobs he obtained.

Several factors influenced job durations, but the most important one was the pay raise obtained in the course of the job. It was found that blacks and men with lower levels of

education tended to stay on their first jobs for longer periods and that this reduced their occupational mobility. The job changes that occurred in the first years after entry were concentrated among men that had obtained jobs of lower quality than the ones that, on average, they could expect to find given their training.

In the eight years after entry the gap between whites and blacks that had only existed for well educated men spread to the lower levels of education. The tasks men performed were largely based on their levels of education but their wages came increasingly to be dependent on experiential factors, so men with limited amounts of education could experience considerable wage mobility. The first jobs obtained after entry exerted a unique and continuing influence on later occupational mobility.

ACKNOWLEDGEMENTS

This study is part of a larger research program called the "Social Accounts Project". Its aim has been to lay the basis for a national system of social accounting. The originators of the project were Professors James S. Coleman and Peter H. Rossi, both of the Department of Social Relations of The Johns Hopkins University. Over the past three years the main focus of the project has been on the collection and analysis of a set of life history data for Americans. These data are the ones used here in this description of entry into the labor force.

I did not join the project staff until a point at which the main tasks of data collection had been accomplished and so I owe a considerable debt of gratitude to those who worked on this most arduous part of the research. The data are remarkably good; they would not have been so good without the expert and meticulous supervision of Zahava Blum. Nancy Karweit of the Center for the Social Organization of Schools' computing center and Aage B. Sørenson a fellow graduate student, along with Dr. Blum accomplished the very difficult task of organizing a data retrieval system for this very complex set of data. John Kervin and Richard Conviser helped with the initial stages of coding the material. Page Clark and Charles Berry helped me through the painful first steps of the computer processing. I wish to thank Shirley Sult for typing the manuscript.

The immediate supervisor of the analysis presented here has been Peter H. Rossi. Several times he rescued me from the confusion of constant contact with the data themselves and forced me to take a look at the sociology that was going on. Though a bit moody at times, he has been a good friend and a good sociologist and it has been a great pleasure working with him.

SUMMARY

Entry into the labor force marks an important starting point in the careers of most Americans. The series of jobs that takes the place of formal schooling is just one of a number of significant changes that characterize the transition into adulthood. The individual gains a first measure of financial independence. Men become liable to the draft. Young men and women begin an accelerating movement away from the families in which they grew up and establish their own households; increasing proportions marry and begin to have children.

Individual circumstances, the point at which schooling is ended, and the nature of a person's job experiences during these years have an important social significance. Variations in the manner of entry into the labor force reflect the class, sexual, racial, ethnic, and demographic differences in a society. For blacks and for women it is a time to see white men with amounts of education equal to theirs, find more interesting and higher paying first jobs while experiencing less unemployment and more mobility. In a society with an immense investment in education, the transformation of individuals from the roles of students into productive workers is of considerable economic importance.

In spite of the obvious significance of entry, relatively little is known about it (or about intragenerational mobility processes in general), though a thread of research does extend back at least to the nineteen thirties. A consistent picture of entry, though not a detailed one, emerges from the several studies.

This is conclusive evidence that the kind of job a man finds after first entering the labor force has a significant impact on his later occupational achievement, even if his level of education is held constant. A recent study shows that older, white, and better educated individuals from higher status families experience less unemployment, know more about the job market, have higher aspirations, and get better jobs in their first years of work than those that are younger, black, have less training, or come from poorer backgrounds. Many of these studies show a curious ambivalence; while labelling the period one of "floundering" and reporting a "large element of chance" in the jobs found at that time, they are nevertheless able to demonstrate the consistent impact of class and racial factors.

A lack of appropriate data has prevented the emergence of a clearer picture of the way in which American men enter the labor force. The most important objective of this study was to provide such a description. There is no agreement in the literature as to what constitutes entry; some studies choose an arbitrary definition of a first job, like the first full-time job after leaving high school, while others rely on questionnaire respondents to name their own first jobs. We used the first of these methods and set out an empirical definition of when a person had entered. While much of the research has focussed on the convenient concept of a first job as characterizing entry into the labor force, it is really a summary measure for of what is in fact a period of entry into the job market. We will go beyond the discussion of this first job and also focus on the mobility processes that occur in the first months and years after entry and their outcome in the relatively long range.

The Data

This analysis of entry into the labor force is based on a set of retrospective life histories. Random samples of about eight hundred black and white American men between the ages of thirty and thirty-nine were asked to describe all the jobs they had held, their schooling, changes in marital status, and the composition and location of their households at each month from the time of the interview (1968) back to when they were fourteen years of age. These retrospective histories offer considerable advantages over the conventional cross-sectional measures of each of these variables, the most important of which is the opportunity to follow an individual over time. Strictly speaking, our conclusions bear only on the age cohort included in the sample, though it is hoped that they can be generalized to other sectors of the population.

The study is mainly concerned with the quality of the jobs men obtained in the years following entry into the labor force of which two measures were taken as criteria, a job's wages and its occupational prestige score. In order that the rates of pay of jobs held should be comparable, all wages were standardized to 1959 dollars. The prestige score of an occupation is a single summary measure of its "social standing" in the eyes of the American public. The relative ranking of occupations does not differ significantly between blacks and whites and is known to have remained very stable over the last fifty years. While the wage and prestige measures are quite strongly associated with one another, higher paying jobs tended to have high prestige, they do reflect real and differing dimensions of job quality.

Definition of Entry

For most men, the point of entry into the labor force occurs at a clearly recognizeable point: they leave full-time schooling for the last time, take the first of a series of jobs, and never return to school. But there are others that do not follow this pattern, taking a year off from school but returning to the status of full-time student, entering the armed forces, going to school after some years work experience, ... This discussion is built on a definition of entry that sets an apparently reasonable criterion for the first time in which an individual makes a fairly long term commitment to working. We define the point of entry as the first time at which an individual leaves full-time schooling for a continuous period of seventeen months or more.

This definition excludes jobs found during summers or in the course of taking up to one year and a summer off from school, while a man who joins the armed forces (the minimum time of service is twenty-four months) has entered the labor force even if he returned to school at the end of this period. According to this criterion, around three-quarters of the whites and nine-tenths of the blacks received no significant further schooling after entry. A number of useful characteristics of the men at the point they enter are now easily designated, including educational attainment at entry, age at entry, the first job after entry, and a series of jobs held part-time and during summers that individuals may have had before entry.

Educational Attainment and Age at Entry

There was a considerable difference between the mean educational attainment levels of whites and blacks at the time they entered; two-thirds of the whites but only forty percent of the blacks had completed high school, while three times as large a proportion of whites (a total of ten percent) as blacks had completed college. Approximately two thirds of the deficit in education of blacks could be attributed to the lower average socio-economic status of the families in which they were raised and the remainder was due to direct discrimination in the quality of the schooling they obtained. There was a somewhat stronger connection between educational attainment and respondent's social class background among whites than blacks. The respondent's father's education and occupational prestige score had a greater impact on education at entry for whites while mother's education had a stronger impact on the education at entry of blacks! This tallies with other comparisons of white and black families in the United States.

The mean age at entry was quite low, about seventeen years for blacks and a year more for whites. Age at entry and educational attainment at that point were largely synonymous--men with no high schooling averaged only fifteen years of age at entry, high school graduates about eighteen years, and college graduates around twenty-one years. The difference in the average ages at entry of blacks and whites was entirely explained by the lower average level of education at entry of blacks.

Jobs Before Entry

Many individuals had one or more jobs before they entered the labor force. These experiences took the form of summer jobs, occasional years off from school, and part-time jobs held on weekend and during off-school hours throughout the years. Roughly half the whites and a third of the blacks held one or more full-time jobs in this period; a quarter of the whites and half that proportion of blacks had at least one full-time job before entry. For whites, their levels of education were the most important influence on the numbers of jobs held, while blacks appeared to obtain these jobs more on the basis of age, older boys got more jobs.

These were relatively poor jobs, measured either in terms of the typical wage or prestige score. Most of them ranked considerably below the first jobs any but the least well educated individuals could expect to find after entry, they were mainly unskilled or semi-skilled blue-collar jobs. While there was little difference in the wages paid whites and blacks with equal levels of educational attainment, whites did find more intrinsically interesting jobs than blacks, as indicated by their higher occupational prestige scores. Like the numbers of these jobs, the level of skills of whites had the strongest influence on the quality of the jobs they held, the family background and age of blacks were the best predictors of the kinds of jobs they held.

The age and educational attainment of an individual were the most important determinants of whether he was likely to get a job before entry and of the quality of that job. When a comparison is made to whites of the same levels of education blacks were clearly at a disadvantage in finding these jobs. The race difference in job quality was not so striking, but it was there.

The First Job After Entry

i. Job Quality, Education and Race

The educational attainment of a respondent was an excellent predictor of both the occupational prestige score and starting wage of his first job after entry. The relationship between education and job prestige was a rather curved one, with each additional unit of education resulting in a larger prestige increment. A comparison of whites and blacks of equal education revealed that, at every level, blacks had lower prestige jobs. The race gap increased with increasing education; there was virtually no difference between the prestige scores of whites and blacks with very low levels of education but a large gap existed between the jobs white and black college graduates were able to find. The difference in the job prestige values of whites and blacks was approximately halved when the mean educational attainment level in the black community was equated to that for whites; the remaining deficit of blacks was due to discrimination of a more direct kind.

There was a far stronger connection between education and first job prestige for whites and so blacks could be less sure of their ability to translate educational achievement into a good job. The impact of race on job quality was of the order of a tenth as large as the effect of education. With education held constant, there was virtually no difference in the average wages of whites and blacks. The increment in wage per unit of education was relatively constant and not a function of the level at which it was measured.

ii. The Armed Forces

Approximately a sixth of the men did not enter the civilian labor force after leaving school, taking jobs in the armed forces instead. Almost none of those at the very lowest levels of education were in this group. Entry into the military was concentrated among those at the middle levels of education, though a larger proportion of black college graduates served at this early point in their careers than was true of their white counterparts. For whites, a job in the armed forces was at about the average of their first job prestige score while for blacks these jobs were significantly above the average.

iii. Finding the First Job

Most men experienced little difficulty in finding their first jobs after entry, about seventy percent found a job within a month of the entry point. A curious and interesting finding emerged when education was held constant: whites with high levels of education found jobs more easily than blacks with the same training, but blacks with little schooling found jobs more rapidly than poorly educated whites. This suggests that the labor market was distorted in such a way that it could more easily accept well-trained whites and poorly educated blacks.

Individuals at different levels of education tended to use different channels to locate their first jobs: poorly educated men relied more on friends and members of their families while those with more education obtained jobs through direct application (primarily), employment agencies, and advertisements. This pattern was marked and held up for both races. When all other factors were held constant, the channels used by the men with more education resulted in somewhat better jobs.

Fifteen percent of the men in the sample made geographic moves in the period between entry and the start of their first jobs, with college graduates (a quarter of whom moved) doing so more frequently. Making such a move had a very slight beneficial impact on the quality of the first jobs of whites and essentially no effect on blacks' jobs.

iv. Region

In order to measure the impact of region of the country on the kinds of jobs obtained, the wages and occupational prestige scores of men with equal levels of education in each of the nine "Bureau of the Census" regions were compared. Region had almost no effect on prestige but a considerable impact on the wages of jobs. Holding education constant, jobs in the Pacific, East North Central, and Mountain regions payed the highest wages, while the East South Central and South Atlantic regions offered the lowest pay. There was little difference in the impact of region on whites and blacks; low paying regions were low for both races and high paying parts of the country offered better wages to both races. While an individual could do little to raise his job prestige, a move between regions could considerably increase his wage. This suggests that the kind of work a man does, as indicated by the prestige value, is mainly a function of education and training, but that situational factors like region do account for considerable variation in wage rates.

v. Industry of the First Job

The sample was not sufficiently large to yield a very accurate description of the differences between industries and so a simple breakdown of all sectors of the economy into six categories was the basis of the analysis of this factor. Men at the very lowest levels of education tended to find first jobs in the "agriculture, mining, and construction" industry, those at middle levels gravitated towards manufacturing, transportation, and the "wholesale and retail trades", and college graduates collected in the business and "finance and public administration" categories. Clearly this pattern was a function of the skill level compositions of these industries.

Comparing individuals with the same levels of education, the industry of their first jobs after entry had a very considerable impact on the quality of those jobs. The industries that offered the highest wages were not those characterized by the highest prestige scores. The higher prestige jobs occurred in the "finance and public administration" and business industries, followed by transportation, manufacturing, "wholesale and retail trades", and "agriculture, mining, and construction". With education again held constant, the highest paying jobs were in manufacturing and transportation and the lowest in business, "finance and public administration", and "wholesale and retail trades" (the first two of these last three paid quite well for blacks). This is a remarkable finding and has no apparent precedent in the literature.

vi. Family Background and Pre-Entry Jobs

The social class of the family in which the respondent grew up had little direct impact on the prestige value of the first job he found. This factor did exert a strong influence on the amount of schooling an individual obtained and this in turn was a very important determinant of the first job prestige score. The effect of social class on the wage of that job was much larger, it was a third to a half as important as education. The numbers of jobs an individual held in the period before entry had essentially no impact on the first job.

The effects described above held true for whites and blacks. A racial difference did appear with respect to the relative impact of educational attainment compared to situational factors like the means of finding the first job, the industry of that job, etc. These situational factors had a greater effect on the quality of the first job for whites than for blacks while education was relatively better predictor of black job levels than it was for whites.

The Duration of the First Job

While a great deal of academic effort has been concentrated on the quality of jobs and their determinants, the durations of jobs and transitions between them have been relatively neglected. Yet they are an important aspect of occupational mobility. Aside from pay raises, men were only able to improve the quality of their jobs through such transitions. An analysis of the duration of the first job after entry yielded quite startling results.

There are two ways of looking at job durations: on the one hand blacks and poor whites are often characterized as "shiftless" and unable to "stick with" a job, on the other it is the main path towards occupational mobility. The second of these is the correct theory--it was found that men with more education stayed on their first jobs for shorter periods of time than those with less schooling. The mean duration of black's first jobs was around three years, a full year above the white average. The prestige and wage increments between the first two jobs were relatively constant in all the race and education categories. Thus the most important job quality gains were the result of job shifts.

By far the most important influence on the duration of the first job was the size of the pay raise obtained in the course of that job, larger increases increased the expected duration. Individuals that made large pay gains between their first two jobs had longer first job durations, they apparently remained at at their first jobs until a relatively attractive offer appeared. A third factor was the respondent's marital status. It was found that married men stayed on their first jobs an average of twice as long as those that were single. Younger men also tended to stay on their first jobs. These four factors provided exceedingly accurate predictions of the first job durations.

We can conclude that the men that changed jobs more frequently were those best equipped to deal with and to take advantage of the job market. Whites and men with high levels of education were in this category. Further, it appears that a lack of easy mobility between jobs in this period significantly impeded the progress of the careers of those men that do not make such transitions, this presumably caused by a lack of good job opportunities.

One and Two Years After Entry

In order to gain a familiarity with events early in the careers of the respondents, but allowing sufficient time for them to change jobs and to become more settled into their work roles, an examination was made of the jobs held at the points one and two years after entry. Because of the specific definition of entry that was chosen, there was almost no change in the levels of education in these two years. The men were still quite young, with an average age of nineteen years for blacks and twenty for whites.

Perhaps the most important trend in these two years was a gradual flow of individuals out of the civilian labor force and into the armed forces. By the point two years after entry, approximately a third of the whites and blacks were in the military, double the proportion that took these jobs immediately after entry.

Over this period there was a small upward trend in the prestige scores and wages of both whites and blacks and a small but perceptible widening of the gap between them. While those with the very lowest levels of schooling remained mired in their poor first jobs, for those with at least some high school there was a marked decrease in the numbers in the lowest quality jobs. This trend was the result of transitions into better jobs and into the armed forces. These changes increased the predictive power of educational attainment with regard both to prestige and wages. The dominant trend was for men whose first jobs were not as good as those they could expect on average, given their levels of education, to change jobs.

The data did not support the hypothesis that this was a period of particular occupational instability or uncertainty. Three-quarters of the whites and five-sixths of the blacks were still on their first jobs one year after entry, and after another year half the whites and three-quarters of the blacks had not changed jobs. The job shifts that did occur benefitted those that made them.

One and two years after entry into the labor force, the effects of the industry of a job, region, the means used to find job, etc. were much the same as they had been at the start of the first job. In those cases where a man had changed jobs in this period, the characteristics of his first job, with the exception of its occupational prestige score and wage, had little impact on the later job. Thus an individual whose first job was, say, in agriculture (a very low status industry) but who then moved to a new job in some other industry, was not negatively affected by this first job industry. The effect of education, of course, did persist and continued to have a very strong effect on the jobs held throughout this interval.

The most important predictor of the quality of a person's job one and two years after entry was his first job after entry. The fact that most men did not change jobs in this period made such a finding almost tautological. The quality of the first job was found to influence that of the job held two years after entry, irrespective of the job held one year after entry. Furthermore, educational attainment directly influenced the kinds of jobs held one and two years after entry, not all of its influence was channelled through the first job.

The Medium Term Consequences of Entry

The effect of entry into the labor force was measured by examining the jobs men held eight years after they entered the labor force; this held constant the length of each individual's experience in the labor market. In these eight years there was a small rise in the mean levels of education of whites and blacks, though the larger gain by whites further widened the race gap. These changes were concentrated among those with fairly high levels of education at the time of entry.

At entry there was little difference in the wage and prestige averages of whites and blacks, except at the highest levels of education. In the next eight years this deficit spread to men at the lower levels of education too. At this later point blacks with some high school were only slightly better off than those with no high school at all, while whites with even this low level of education were able to make some prestige and wage gains in these eight years. Though the "cost of being black" increased measurably in this period, the differences between whites and blacks with the same levels of education continued to be far smaller than those among men with different amounts of schooling.

While it is known that later occupational achievement is strongly influenced by the first job, this result is based entirely on one piece of evidence--there is known to be a high correlation between the prestige score of the first job and later jobs. We can fill out this picture considerably. The occupational prestige score of the job held eight years after entry was affected by the prestige score of the first job and by no other first job variable. Similarly the wage of the first job was an important factor in determining wage at the eight year point. In both cases this effect was independent of educational attainment. It was very significant that there was no effect of first job wage on eight year prestige or of first job prestige on the eight year wage, and that the industry of the first job, the means of finding that job and its other characteristics had no long term impact. It is adequate to characterize first jobs simply by their prestige scores and wages. The prestige scores and wages of the jobs held two years after entry were much better predictors of later job quality than the first job after entry.

An interesting contrast emerged between the wage and prestige variables. The respondents' educational attainment had a considerable impact on the prestige of the job held eight years after entry, irrespective of the prestige of his first job. For the wage variable, the impact of education was quite small compared to that of the wages of jobs held near entry. Thus there is evidence of a continuing link between occupational prestige--the social standing of the task a man performs--and education. Wages were far more experientially defined. Through experience a man could make considerable wage gains. Apparently no experience can make up for education, if job prestige is to be taken as the criterion of job quality.

Conclusions: Race and Class in America

Though not exhaustive, this study has made significant strides in describing the labor force experience of young American men in their first years of work. While this period has often been labelled one of uncertainty for the individual, it was found that it was possible to explain the levels of the jobs held with conventional predictors of occupational achievement. Furthermore the occupational mobility that occurs in this period consisted mostly of job changes by men whose first jobs were below those they could expect to find on the basis of their level of education and training. The jobs held in the first years after entry strongly influenced the careers and later occupational achievement of individuals.

It has been possible to trace the strong and persistent impact of race and of education. The findings have come out at the individual level. Blacks are likely to come from poorer homes than whites, have more difficulty getting summer and part-time jobs, and when they do get them they are not as good as the ones whites get, enter the labor force with less education, get poorer first jobs than similarly prepared whites, are less mobile,..., and end up with poorer jobs offering less intersting things to do, and at lower pay. This is what happens to the individual. We could replace the word black with poor white:

it would be the same. These are institutional patterns, and the steadily increasing racial and class differences are as much a function of the American institutions as they are of the individual. This study has documented something of the class nature of this society and of the presence of institutional racism.

CHAPTER I

INTRODUCTION

"The investigators in San Jose were left with the definite impression that chance has much to do with "landing" the first permanent job. For many a boy in the sample this first job had a decisive effect upon his subsequent occupational career, and the assignment of so dominating a role to mere chance presumably often has unfortunate results..."

Percy E. Davidson & H. Dewey Anderson in Occupational Mobility in an American Community, 1937

"...most youngsters (and their parents) approach the choice of a first job with no clear conception of where they were going; the great majority of first jobs were found in a very informal way, preponderantly through relatives and friends; the great majority of youngsters took the first jobs they found and did not make comparisons with any other job; their knowledge of the job before they took it was extremely meager and in most cases the job turned out to be a blind alley which did not lead to anything better."

Lloyd G. Reynolds in The Structure of Labor Markets, 1951

"Three major generalizations sum up much of the research on factors affecting occupational careers. First, despite the net upward mobility which prevails in industrial societies, there is some tendency for men to inherit the occupational status levels of their fathers. Second, people are strongly influenced by the advice of significant others when they select jobs and choose occupational aspiration levels. Third, the general values which people hold are systematically related to their aspiration levels and to the kinds of occupations they choose."

Richard L. Simpson and Ida Harper, "Social Origins, Occupational Advice, Occupational Values and Work Careers." in Social Forces, March, 1962

For the men aged 26 to 35, the simple correlation between the occupational prestige of an individual's first job and the educational attainment of that person was .574, that between the occupational prestige of his first job and his occupational prestige at the time of the interview was .584.

Figures taken from Peter M. Blau and Otis Dudley Duncan, The American Occupational Structure, 1967

Sooner or later almost all men and increasing numbers of women enter the labour force. Variations in the kinds of jobs held during the first few years of labor market activity reflect both the differences between individuals and the broader class, race, ethnic and demographic features of the society. Thus by studying what happens to individuals as they enter the labor force we can hope to learn about the impact of and interaction among these aspects of a society.

Of course this statement can be made about any social phenomenon; some aspects of behaviour are more interesting to study and provide more fruitful results than others. For a number of reasons entry into the labour force appears to offer a fertile field of study. Entry into the labour force constitutes an important transitional point in the lives of individuals. Their schooling ended for at least some period of time, it marks the starting point of what is likely to be a long term role as a labor force participant. Once this transition has taken place the individual is seen and comes to see himself or herself as an adult, men become liable to the military draft, while both men and women find their financial resources rapidly increased. Geographic mobility increases and the proportion of those that are married also rises.

At a more abstract level too, entry into the labor force plays an important part in the development of patterns of social stratification in a society as a whole. Studies of social stratification in industrialized societies usually consider three dimensions of social class: educational attainment, income, and the nature of the individual's job. These are not independent of one another and furthermore, one of these, educational attainment, precedes the other two in time. To some extent education influences the income and job quality dimensions. In fact there is a translation of education into job quality, one which occurs for the first time when entry takes place. This is one reason for the theoretical and empirical significance of entry into the labor force.

The jobs obtained after entry are important both from the standpoint of intergenerational and intragenerational mobility. Entry marks the first point at which it is possible to make intergenerational comparisons of occupations while at the same time it establishes the starting benchmark from which to measure occupational mobility of the individual. Entry thus provides the link between the study of these two mobility processes.

This study concerns itself with only a small part of the problem as a whole, it focusses on entry of men into the American labor force. The remainder of this chapter is concerned with a review of research in this area, followed by an attempt to formulate a set of significant and unanswered questions about the entry process to serve as a guide to the analysis of a set of survey data.

Previous Research on Entry into the Labor Force

The first three excerpts given at the beginning of this paper go a long way toward summarizing the results of research conducted on this problem up to 1967. Davidson and Anderson[1], reporting in 1937 on one of the first large surveys concerned with the American occupational structure, characterized the entry period as one of "floundering". At the same time their results showed that there were strong systematic differences among individuals of different skill levels. Although there is no logical contradiction between the characterization of the period as "floundering" and the findings concerning systematic class and educational attainment differences, Davidson and Anderson, like the researchers who follow them, display an attitude approaching ambivalence in their discussions of the entry period. On the one hand, they describe the period as being one in which the individual connects with his first jobs by a process determined mainly by chance and luck. On the other hand, they document that the sons of the well-to-do enter the labor force at much higher levels than the sons of the poor.

---

[1] Davidson and Anderson, op. cit.

The portrait of the entry period that emerges from Davidson and Anderson's study is one that subsequent studies over the next thirty years have done little to change. Entry is a process marked by a great deal of variation among individuals, yet social class, educational attainment and other factors exert unmistakably strong influences on modes of entry.

Perhaps the most important focus for research within the entry period itself has been on the ways in which new jobs are located. A number of studies[2] bearing on this topic have shown that workers seeking jobs do not spend much time on the job search. Informal contacts, relatives, friends and fellow workers, all relatively passive means, are found to be of great importance in finding new jobs.

---

[2] See Simpson and Harper, op. cit., Seymour M. Lipset, Reinhard Bendix, and Theodore Malm, "Job Plans and Entry into the Labor Market." Social Forces. (March 1955), pp. 224-232, Harold L. Sheppard and A. Harvey Belitsky, The Job Hunt (Baltimore: The Johns Hopkins University Press, 1966).

Attempting to explain why workers do not invest more time in or make more systematic attempts to find good jobs, but instead take one of the first few they find, Stigler[3] provides a simple and compelling explanation that reveals an underlying rationality to this strategy. He shows that if the variance in the quality and salaries of the jobs available is not large for an individual with a given level of educational attainment and skill, then the marginal utility of finding additional job openings to consider, after the first three or four, is very small. The cost, however, of locating an additional opening remains uniform. The logical conclusion is that there is little to gain from an extensive job hunt.

Another consistent finding has been that persons with lower levels of skill and formal education have more difficulty in finding jobs and that when they do find them the jobs are likely to have both low occupational prestige and low income.[4] Studies show that less well educated persons receive less and lower quality vocational advice, partly a result of their coming from poorer social backgrounds--ones that are less able to provide the contacts to get good jobs.[5] In all of these studies the direct effects of parental social class and indirect effects on levels ot formal education are the dominant variables, among the correlates of labor market behavior.

---

[3] Stigler, George, "Unemployment and Job Mobility," Journal of Political Economy. (October 1962), pp. 94-106.

[4] See Herbert S. Parnes, et. al., Career Thresholds, Volume I (Columbus: Center for Human Resource Research, Ohio State University, February 1969), pp. 65-80, and Blau and Duncan, op. cit.

Work in the fields of stratification and occupational structure took a qualitative step forward with the publication of Blau and Duncan's The American Occupational Structure[6] in 1967. The use of a very large sample, numbering over twenty thousand American men between the ages of twenty and sixty-four, combined with their coding the occupational prestige scores of the respondents' first jobs on entering the labor market, their jobs at the time of the interview, and their fathers' occupations, made possible accurate calculations of the effects of different factors in determining an individual's place in the occupational structure. The development of an occupational prestige scale, that is known to have remained very stable over the past half century,[7] made it possible to use powerful multiple regression techniques in the place of tabular methods. These occupational prestige scores have been shown to behave in a linear fashion, a further aid in most analysis.

---

[5] See Simpson and Harper, op. cit.

[6] Blau and Duncan, op. cit.

[7] See Peter H. Rossi, Robert W. Hodge, and Paul Siegel, The Prestige Standing of Occupations, forthcoming 1971 and Robert W. Hodge, Paul M. Siegel, and Peter H. Rossi, "Occupational Prestige in the United States: 1925-1965," in Reinhard Bendix and Seymour M. Lipset, eds. Class, Status and Power, 2nd ed. (New York: Free Press, 1966), pp. 322-334.

For our purpose here, Blau and Duncan's most important finding was that the occupational prestige of the first job a respondent had on entering the labor force was an important determinant of the prestige scores of the jobs he had later in life, controlling both for the effect of the socioeconomic status of his family of origin and his educational attainment. A combination of multiple regression techniques and a large national sample allow Blau and Duncan conclusively to establish this fact and hence the importance of the entry period in the analysis of occupational structure in the United States. Of course, these data do nothing to describe the processes of entry itself, beyond proving that it is important.

Career Thresholds, by Parnes, et. al.,[8] also reports on data from a large national sample with detailed data on the entry period. This preliminary report goes little farther than the presentation of marginals for the data of the first years of a five year panel study of a national sample of males, aged initially 14-24. So far Parnes has not attempted either to present a theoretical framework for analysis or to use multivariate techniques to untangle the effects of different variables. Parnes provides many cross-tabulations showing the relationship between race, socioeconomic status, educational attainment, and age run against occupation, aspirations, job satisfaction, and knowledge of the labor market. Predictably, the older, white, better educated individuals from higher status families have better jobs, experience less unemployment, know more about the job market, and have higher occupational and educational aspirations.

---

[8] Parnes, et. al., op. cit.

Taken together, all of these studies reveal that the entry period has an extremely important influence on the course of an individual's occupational career. This general finding shows through despite the variation from study to study in the populations being studied, in the time periods involved, and in the statistical techniques employed. Although much more sophisticated and detailed analyses can be expected to come from the Parnes study, so far very little is known about the process of entry. Indeed, from one study to the next, there is even some difficulty in squaring the varying definitions of the entry point itself. For example, Parnes defines entry as the first full-time job after completion of high school, while Blau and Duncan leave it up to the respondent to define what was his first full-time job.

As this short literature survey has suggested, there is a very real lack of knowledge about what goes on during the period when men enter the labor force. This paucity of information stems both from a lack of adequate data and from an inability to conceptualize, to put in a useful theoretical framework, the process of entry. Of course these are not in fact separate problems: if the analysis of data is to present adequate answers about what goes on around entry we must learn to ask the right questions. We now present a criticism of the available research and attempt to formulate a set of good questions to motivate the analysis of the actual data.

Criticism of the Literature

The literature has been plagued with a continuing inability on the part of researchers to say what they mean by entry into the labour force. The definition is not obvious and while a number of different ones have been used, none of them appears to have been based on an attempt to think through the implications of the definition. The development of such a theoretical framework for the study of entry into the labor force and its transformation into a set of empirical criteria for entry is a prerequisite of further productive research in this area.

Previous studies have tended not to be oriented to the discovery of entry processes but rather deal almost entirely with cross-sectional variables defined at single points in time. Thus Parnes provides many tables showing employment status at several points and its relationship to a number of other variables, but he does not deal with the non-static elements of the entry process. For example, we never learn whether men experience high levels of unemployment, because they cannot find jobs or because they drift in and out of jobs in rapid succession, nor does he discuss the consequences of changing jobs in this period on the level of those jobs and on an individual's prospects of long term occupational mobility.

Entry into the labor force cannot be treated simply as a single event, rather a set of interconnected events defined at several levels occur as each person settles into full-time and long term labor force participation. The jobs a man finds in his first few years in the labor force are related both to one another and to other events in the individual's history, like marriage and moving. The empirical consequence of a demand for this sort of analysis is the condition that the data collected in a study of entry must be of a longitudinal variety.

Such a set of data must also be drawn from a useful universe. With the notable exceptions of the recent studies by Parnes and by Blau and Duncan, research on entry has tended to focus on atypical subgroups of national populations. Thus labor economists have tended to deal with depressed labour markets in order to arrive at solutions to economic problems. The difficulty, of course, lies in the lack of generality in the conclusions that can be reached on the basis of an atypical population. This lack of studies of representative populations is largely a result of the period in time when the studies were performed. It has only been for the last ten years or so that automated data processing techniques and the availability of large sums of money for the collection of data have made it possible for sociologists to work with large random samples of the population.

Previous research in this area has tended to make little use of multivariate methods of analysis. If for example we deal with the first job a man finds after entry into the labour force, many factors could play a part in determining its quality, including the industry and specific firm in which the job is located, the race and educational attainment of the individual, his marital status, and the extent and nature of his employment experience. A rigorous analysis of entry must deal simultaneously with all of these variables.

Research Framework

This study is concerned with a number of interrelated problems. It deals first with the impact of race and educational attainment on the jobs found during the entry period and later with occupational mobility processes in this period of time. While it is possible to define analytically separate analyses of race and education, in any real society the effects of these two factors tend to be intertwined with one another (the data we will consider are drawn from a random sample of the American population so that race must always be considered in the discussion). The development of these race and class differences over time will be of specific interest to us.

Second, we will deal with the problem of the extent to which behaviour during the entry period is predictable. Some of the literature suggests that there is a great deal of uncertainty in occupational outcomes during this period, while other parts of it deal with the systematic differences in the occupational histories of individuals from different backgrounds. One theme of this analysis will be the extent to which it is possible to find patterns of labour force activity during the entry period.

Little attention has been paid in the literature to the relative importance of different aspects of jobs. Job quality is not unidimensional; rates of pay, the social status attached to a job, and working conditions, while not totally independent of one another are also not that closely connected. Specifically we will deal with the relationship between rates of pay and prestige of jobs. We will attempt to discover something of the way in which these two indices of job quality influence the occupational choices of individuals.

Related to questions of the quality of job are others about the nature and extent of social mobility during the entry period. Mobility in this period is an important component of the occupational mobility occurring over the total working life span; we must deal closely with the individual links in these shifts in status. Thus a description of occupational mobility in the entry period must concern itself with the manner in which men get raises in pay and the process of changing jobs as well as with the levels of the second jobs. These considerations are in turn linked to a number of other factors: race and educational attainment, the personality of the individual, and the quality of the jobs men hold. Only a multivariate analysis can deal with these factors simultaneously.

Four themes, class and race, the level of uncertainty, the nature of jobs, and mobility processes, will constitute the analytic threads running through this study.

Descriptive Themes

The previous section deals with the analytic concerns of this study. They will emerge as foci in the course of describing entry into the labor force. The most pressing substantive need is for a reasonably comprehensive description of what happens to men as they enter the labor market. The literature provides us with little more than the beginnings of a picture of the occupational histories of men during this period. We need to know how men find their jobs, the determinants of the quality of the jobs they do find, and what causes them to leave these jobs. In the process of making this description our concern will be with the four analytic themes described above.

After describing occupational activity during the entry period we will attempt to relate the jobs men hold to other aspects of their lives, specifically their geographic locations and marital status. As well, measures of the social class of the families in which individuals were raised will be introduced into the analysis. The large numbers of influences of job quality will be separated with multivariate techniques, to the extent to which that is possible.

Finally we will look at the long term consequences of behaviour during the entry period. Many variables can be used to describe what goes on during the entry period and our task will be to decide which of these have some sort of lasting impact and which, while they may have an important influence on what goes on at entry, have little impact on later jobs. The next chapter goes on to a concrete discussion of the implementation of this analysis.

CHAPTER II

RESEARCH STRATEGY

We have so far dealt with entry into the labour force in a very general fashion. The object of this chapter is to connect the analytic framework that has been laid out with a specific set of data. We will present first a detailed description of the data and comment on its overall quality and this will be followed by a plan for the analysis of entry into the labour force. The chapter concludes with a compilation of definitions that will be used in the investigation.

Description of the Data

The questionnaire was of a unique design (see Appendix A) in that it provided for the collection of information about a number of aspects of a respondent's behaviour that were not constant over time. In a single interview he was asked to describe his activities from the age of fourteen. The advantage of such a "retrospective" technique lies in the high level of detail in the data collected, the cost is measured in terms of increased measurement error. Furthermore, it is difficult to arrive at good estimates of the extent of this error and of the degree to which it varies with social class, race, and the distance in time between the actual interview and the point to which a specific piece of information is related.

Unlike most interview situations, there was no restriction placed on the presence of third parties during the administration of the questionnaire. Other members of the respondent's household were encouraged to take part in the interview and to help the respondent to give fuller and more accurate responses to the questions.

The central concern of the questionnaire was with the jobs individuals held between the age of fourteen and the time at which the interview was held. A description of each and every job held in this period, whether full-time or part-time, was carefully recorded. The job was characterized by the occupation of the respondent, the employer he worked for, his starting and ending wages, the way in which he located the job, and his reasons for leaving it. The point at which the job was held was identified by recording the starting and ending dates of the job, accurate to the month.

All the respondent's educational experiences were recorded in a similar fashion with the name and type of educational institution involved replacing the specification of occupation and employer for a job. Descriptions of a number of other longitudinal variables were also obtained, including the composition of the household of the respondent, his geographic location, and the jobs held by his wife. In addition to the longitudinal variables, a small number of variables that remained constant (in time) were defined. These included the race of the respondent, some indicators of the social class of the family in which he was raised, religious affiliation and the like. A look at the instrument in Appendix A will give the reader a clearer idea of the nature of the data collected.

The sample consisted entirely of men resident in the United States between the ages of thirty and thirty-nine at the time of the interview (Spring 1969). The age restriction was imposed so that cohort effects could be minimized in the analysis. The specific range of age chosen yielded a group of men with enough occupational experience to provide some measures of occupational outcomes as well as information on the entry period. The upper age limit was chosen so as to eliminate the impact of World War II on the occupational patterns of the men--the oldest participant was aged fourteen in 1945. Individuals from the target population of men between the ages of thirty and thirty-nine residing in households (i.e. non-institutionalized) in the United States were selected by standard multi-stage area probability methods.

Blacks were oversampled in order to increase the accuracy of comparisons between blacks and whites. This was accomplished by first selecting a national sample of about a thousand, in which blacks were present approximately according to their proportion in the nation, and adding to this a separate sample of six hundred interviews with a random sample of black Americans. Of the approximately sixteen hundred respondents, fourty-six percent were black. Wherever possible the race of the respondent was matched to that of the interviewer. The sampling and interviewing were performed by the National Opinion Research Center. For more details about the data collection and processing procedures the reader is urged to see Blum, Karweit, and Sørenson,[9] and Blum.[10]

---

[9] Blum, Zahava D., Nancy L. Karweit, and Aage B. Sørenson, A Method for the Collection and Analysis of Retrospective Life Histories (Baltimore: Center for the Study of the Social Organization of Schools, July 1969).

[10] Blum, Zahava D., "Validation of Retrospective Occupational and Education Experiences in Life History Data" (Baltimore: Center for the Study of Social Organization of Schools, mimeograph).

In the process of collection of a data base like this one, individuals are "lost" at each stage of the operation--first some men are omitted from the initial enumeration, second some cannot be located at the time of the interview, and finally some of the interviews fail to yield acceptable data. A more complicated description of the sample would include a careful accounting of all of these factors as well as a more accurate presentation of the way in which the sample was chosen. Our objective here is far more limited, we simply require some overall notion of the quality of the sample, of how well it matches the population as a whole.

The errors introduced when cases are lost at some stage of the collection procedure are the result of a mixture of random error and systematic bias. Thus blacks and men with lower levels of educational attainment tend to be harder to find both at the time of the enumeration and when the questionnaire is administered and it is perhaps more difficult to obtain useable results from men in these categories, than from middle class whites. The systematic bias tends to make our sample underrepresent individuals of lower social class. A good measure of the extent of this systematic bias can be obtained by comparing the distribution of men among the levels of educational attainment to that found in the population as a whole. Such a comparison of the data here and U.S. Census estimates[11] for the comparable age cohort are found in Table 1.

---

[11] The appropriate national estimates were obtained by slightly collapsing the educational attainment categories for the American population found in The Statistical Abstract of the United States, 90th Edition (Washington, D.C.: U.S. Bureau of the Census, 1970), p. 107.

At first glance the differences are not too large and they are in the predicted direction. Thus blacks with some high school or less education are underrepresented while those with more schooling were overrepresented in the sample. Similarly the sample includes too many white college graduates and too few in all other categories (with the minor exception of there being slightly too many men with no high school). The largest of the differences between the actual proportions and census predictions of these values occurred for white college graduates, they formed 20.7% of the total sample compared to only 15.4% in the actual American population.

The differences between the actual and predicted proportions in these categories provide a rather poor measure of the sampling error. A difference of one half percent between the actual and expected values is insignificant if the category includes fifty percent of the population but is very large if only five percent of the population falls in the category. A better means of comparison is to calculate the proportion of the expected number of cases in each cell actually found there. Thus 134.4% of the number of white college graduates expected on the basis of the Census estimate were found in the sample. The overrepresentation of this group and the underrepresentation of whites with some high school (only 88.0% of the expected proportion) were the only cases in which there was a statistically significant difference between the sample and the Census predictions. Whatever the means of comparison the black sample was considerably "better" than the sample of whites.

TABLE 1

PROPORTION OF RESPONDENTS IN FIVE CATEGORIES OF EDUCATIONAL ATTAINMENT COMPARED TO PREDICTIONS FROM THE US CENSUS,[1] FOR THE COMPARABLE AGE COHORT

EDUCATIONAL ATTAINMENT	WHITES				BLACKS			
	% in Sample	% in Census	Difference	% of Total Population in Sample	% in Sample	% in Census	Difference	% of Total Population in Sample
No High School	13.6%	12.9%	+0.7%	105.4%	24.0%	25.7%	-1.7%	93.4%
Some High School	14.7	16.7	-2.0**	88.0	30.9	31.1	-0.2	99.4
High School Graduation	40.1	43.1	-3.0	93.0	31.0	30.4	+0.6	102.0
Some College	10.9	11.9	-1.0	91.6	7.9	7.2	+0.7	109.7
College Graduation	20.7	15.4	+5.3*	134.4	6.2	5.6	+0.6	110.7
Number of Cases		851				738		

[1] The Statistical Abstract of the United States, U.S. Bureau of the Census, Washington, D.C., 90th Edition, p. 107.

*Census and sample differ significantly at the .01 level.

**Census and sample differ significantly at the .05 level.

This is by no means an adequate test of the randomness of the sample, though it appears that no gross errors have occurred in the course of selecting and interviewing the sample and of processing the data. Clearly there are dimensions other than educational attainment, that could be used as checks on sample quality. These include the geographic distribution of the sample, other measures of social class, the distribution of marital status and of the number of children of the respondents, and the distribution of ages.

But such is not our purpose. A careful analysis of the sample could be used to produce a set of weights that would yield slightly better population estimates of parameters. However, the bulk of this analysis is not concerned with the generation of statistics accurately summarizing characteristics of the population as a whole, it is rather to study the relationships among variables during the process of entry. Sampling error will tend to produce extremely complicated biases in a study of process. In fact we are relatively helpless in the face of sampling error and complicated computations are unlikely to help much. As it is, the commonest bias, that in social class does not appear to be intolerably large and throughout this study educational attainment is used as a control variable, which helps to eliminate this bias. We proceed now to a description of the research strategy (somewhat rationalized by hindsight).

Research Strategy

The study of how men enter the labor force must be based on a definition of when a man can be said to have entered. On the face, the problem appears to be a trivial one with an unambiguous solution--when a man has left full time schooling and found a job, he has entered the labour force. For many men, however, the process is not so simple. What if a man enters the armed forces after leaving school, or if he leaves the labor force to complete his schooling, or if he holds a full time job while in school? These are just some of the complications that may arise.

We must come up with a definition of when an individual has entered the labor force. While the point of entry is quite easily defined for most men, it is necessary to construct an algorithm that specifies a mechanical, and hence bias free, routine to make the decision for each respondent. The definition used must have a reasonableness to it, but beyond this rather vague specification there is a certain arbitrariness to precise one chosen, a common feature of definitional problems like this one. The definition adopted and the logic behind it are described at the end of this chapter.

After each individual has been assigned a unique entry point we will present a description of the men as they enter their first jobs. Two of the most salient characteristics of each respondent at this time will be the age at which he enters and his level of education at this point. On the basis of this entry point definition we can then locate the first job found after entering the labour force. Among the variables of interest will be the length of time it took to find this first job (i.e. the extent of unemployment immediately after entry) the way in which the job was found, the proportion entering the armed forces, the industry in which the job was located, the man's marital status at this point, and whether or not he made a geographic move in order to find the job.

The third chapter will contain a detailed analysis of the impact of some of these variables on the quality of the first job found after entry. The effect of each of these variables will be carefully considered, with only educational attainment and race inserted as control variables. Bivariate regression techniques will be used and separate analyses performed for whites and blacks. The assumptions in carrying out this procedure will be minimized through the use of dummy variables and specific account will be taken of the interaction between education and the other independent variable. The dependent variables will be two measures of the quality of jobs--wages and occupational prestige, of which more later.

The fourth chapter will examine the occupational trends that have taken place at the end of one year after entry and at the end of two years. Why not simply take the second job after entry instead of moving a fixed time span forward in time? The difficulty arises from the wide variation in the durations of the first jobs. So that if we treat men at the start of their second jobs after entry some will be within a few months of entry at this point while others are still holding these first jobs at the time of the interview. At the points one and two years after entry, different individuals have held differing numbers of jobs and it will be necessary to deal in detail with the causes, processes and consequences of changing jobs in this period. In these two years fair numbers of the respondents entered the armed forces and we will deal specifically with the occupational consequences of these non-civilian occupations. The objective of this chapter will be to obtain some description of the jobs held just after entry.

While it is convenient to define the first job a respondent holds after entry, most men have had some form of labour force experience before this point, either in the form of full-time summer jobs or of part-time jobs held while attending school. The analysis of these pre-entry work experiences is presented in the fifth chapter. It includes a detailed analysis of the impact of three variables on the numbers and quality of the full time and part time jobs held before entry. The independent variables were measures of the social class of the family in which the individual grew up, the level of skills he had in the pre-entry period and the extent of his exposure to the opportunity of holding such jobs. Multiple regression techniques will be used in order to separate the effects of these three variables, so far as the level of multicollinearity permits.

The chapter following this one will attempt to tie together the results of the first three chapters of analysis (numbered three, four and five). First, path analysis techniques will be used to present a schematic picture of entry and the jobs held in the two years following this point. Multiple regressions will then be used to deal with the simultaneous impact of educational attainment, jobs held before entry, social class of the family of origin, and the "circumstances" under which a job is found on the quality of the jobs held in the first two years after entry. Particular emphasis will be placed on the changes in the effects of specific variables over this period.

The seventh chapter has a very different focus from the preceding ones. It does not deal with the quality of the first jobs, but rather looks at the mobility process itself by describing the decision to change jobs and the consequences of these decisions. We will attempt to gain an understanding of the job changing process, for this is the very essence of occupational mobility. While men receive raises in pay in the course of working at a single job, only by changing jobs is it possible for them to increase the quality and prestige of the work tasks they perform. We will attempt to discover whether individuals can be said to possess characteristic patterns of mobility behaviour. The analysis will use almost entirely multivariate techniques.

The final step in this analysis is an examination of the long term impact of entry into the labor force. The method is quite straightforward: a point some time after entry is selected and the quality of the job held there is designated as an "outcome" or dependent variable. Multivariate techniques are then used to measure the impact of entry period variables. This appears at first to be simply a replication of the work of Blau and Duncan, only with a much poorer sample. But this is not the case. While we know that entry has considerable long-term impact we know very little about the effect of different variables defined at entry. The data here for the first time make possible a rigorous analysis of the consequences of different aspects of the entry process.

The last chapter presents a summary of the findings and attempts to tie them together along the lines of the theoretical framework discussed in the introduction. We move now to a discussion of the variables that will be used in the investigation and then to a definition of entry into the labor force.

The Definition of a Job

There appears to be little need to define what a job is, but as in the case of a definition of entry into the labor force there are in fact a number of "reasonable" definitions. If a man working for a specific company gets promoted or transferred to some other position in the same enterprise, has he changed jobs? In everyday parlance a promotion, like a raise in pay, is not considered a change of jobs; for our purposes it _is_ thought of as a change of jobs. Throughout this study a job is defined by an employer and an occupational classification. A change in either one of these variables is taken as a change in the job held. Thus a promotion, where a man stays with the same company but changes his work task can only occur when a man has changed jobs.

For the purposes of this study, men in the armed forces are considered to be holding jobs like those of men in civilian occupations. Clearly military and civilian jobs do differ in important ways, perhaps most significantly in the element of involuntariness in the armed forces occupations. Many men are drafted and others enlist under the threat of the draft; there is little attempt made to match military occupations to the skills of individuals; and the durations of this military service are fixed by contract and renewable only for fixed intervals. And yet these are still jobs, positions where men work like those in the civilian labour force. In those cases where the effects of the military jobs were not clear, pairs of separate analyses were carried out, one including and one excluding armed force jobs.

While some men held part time jobs after entering the labor force, our concern is entirely with the full time jobs they held after entry. At one time or another some men also held two jobs simultaneously. For the most part this involved a man holding one full time and one part time job, but there were a very few cases where two full time jobs were involved. For the sake of simplicity of analysis an aglorithm was constructed to indicate which of the two jobs was more important and should be taken as the job comparable to the single job most men held at each point. It was decided that the job with the highest occupational prestige score at any point in time should be taken as the most important job. In the case where one full time job was held over a period of time completely bounded by another job, the longer duration job was used as the main job, regardless of the prestige scores involved. The prestige value was used as the differentiating factor because of the larger number of missing wage values.

A number of variables were defined in order to describe these jobs. At the time of the interview each job was described in terms of an employer and a description of the occupation. These were later coded according to the three digit U.S. Census classification of occupations and industries.[12] The means by which jobs were located and the industries in which they were situated were used as independent variables. The durations of jobs, their starting and ending wages, and their prestige scores were the principal dependent variables through the whole of the analysis. Only one of these variables could undergo any change in the course of a single job--the wage.

There was considerable variation in the time points at which men entered the labor force. The oldest individual with the lowest level of education who entered at age fourteen joined the labour force in 1945, the youngest with the highest level of education might have entered as late at 1961. Thus while the starting wage of the first job is measured at a comparable point in the life cycle of each individual, this event can take place anywhere in a fifteen year span of calendar time. Thus the wages of men on their first jobs after entry are not directly comparable because of the continuous and non-uniform price inflation that took place over this period. In order to avoid these difficulties of comparison all wages were standardized to 1959 prices. Further, all rates of pay were converted to 1959 dollars per month, regardless of whether they were originally recorded in this form or not.[13] Thus a direct comparison of wages at any points in time was possible. The terms wages and income are used interchangeably throughout. Only starting and ending wages for each job were recorded. In order to define wages at points other than at the start and end of jobs a simple linear interpolation procedure was used.

---

[12] Alphabetic Index of Occupations and Industries (1968 Revision), (Washington, D.C.: U.S. Bureau of the Census, 1968).

The second important dependent variable defined for each job was its occupational prestige score. These prestige scores are the average ratings given to occupations by random samples of the American population. The scores represent the consensus of American society concerning the social status of occupations.[14] A prestige score has been found for each of the three digit Census occupation codes. These ratings have been shown to remain relatively invariant with respect to the size and composition of the set of raters (including groups of different racial composition) and the specific wording or form of the rating task. Furthermore these rankings are known to have changed remarkable little over time, the simple correlation between the earliest such scale available in the United States developed in 1925 and one carried out in 1963 was 0.93![15] Table 2 contains a number of sample ratings. The range of this scale of

---

[13] The coding of the wages was prepared by Page Clark under the supervision of Zahava D. Blum.

[14] Rossi, Peter H., Robert W. Hodge and Paul M. Seigel, The Prestige Standing of Occupations (forthcoming).

[15] Hodge, Robert W., Paul M. Seigel, and Peter H. Rossi, "Occupational Prestige in the United States: 1925-1963," in Reinhard Bendix and Seymour Martin Lipset, eds., Class, Status, and Power, Second Edition (New York: Free Press, 1966), pp. 322-334.

TABLE 2

SUMMARY OF OCCUPATIONAL PRESTIGE SCORES

RANGE	TYPICAL OCCUPATIONS
Above 80.0	Physicians
70.1 - 80.0	Dentists, College Professors, Bankers
60.1 - 70.0	Chemists, Engineers, Teachers
55.1 - 60.0	Accountants, Economists, Postmasters
50.1 - 55.0	Librarians, Technicians
45.1 - 50.0	Musicians, Secretaries, Electricians
40.1 - 45.0	Farm Managers, Typists, Mailmen, Plumbers
35.1 - 40.0	Clerks, Auto Mechanics
30.1 - 35.0	Cashiers, Bus Drivers, Hairdressers
25.1 - 30.0	Retail Salesman, Operatives, Lowest Ranks of Armed Forces
20.1 - 25.0	Stock Clerks, Housekeepers
15.1 - 20.0	Newsvendors, Peddlers, Wrappers, Bartenders
Under 15.1	Bootblacks, Ushers

occupational prestige is from zero to one hundred and the results are reported to three digits of accuracy.

Both wages and prestiges scores are continuous variables. Each exhibits a peaked distribution if it is measured at some specific point in time for a sample. An analysis that takes place around these variables cannot but yield a picture of a continuous world. We should be certain to remember that prestige and wages are not measures of social class in the conventional sense but rather measures of the distribution of two kinds of rewards in American society.

Race

For the purposes of this study race was defined as a dichotomous variable. One of the categories is composed of blacks and the second contains all the others. Approximately ninety-seven percent of the later group are whites with small numbers of Chicanos, Orientals, and American Indians included. The effect of these non-white and non-black individuals is very small. The two groups are referred to as whites and blacks in the text.

In almost all of the analysis separate tabulations, regressions and the like were performed for the two race groups. This was done in order to avoid assumptions of non-interaction between race and other independent variables. There are however a few cases in which our object was to generate population estimates of regression coefficients. Using Census results[16] it was found that blacks constituted 10.83% of the male populations between the ages of thirty and thirty-nine. In order to produce estimates equivalent to those for the population as a whole it was necessary to assign a weight of .1373 to each black case.

---

[16] The Statistical Abstract of the United States, op. cit., p. 212.

Industry of Jobs

With the numbers of cases in the sample it is impossible to do justice to any analysis of the industries in which jobs were found. At best we can hope for a classification with a small number of categories that gives some general indications of the results that can be expected with a more complete classification.

A clear guideline to the construction of such a classification comes from the census industry codes. The first digits of these three digit codes broadly classify the 211 major industries, the ten first digits place all of the industries into ten major groups. These were collapsed to six for purposes here. All three of the manufacturing categories were collapsed into a single one, simply labelled "manufacturing". This decision was based on the belief that to the worker engaged in manufacturing some product, the distinction between durable and non-durable products is not an important one. Similarly the categories "finance" and "public administration" were combined and just called "finance". The categories "agriculture, forestry, and fisheries" and "mining and construction" were lumped into a single industrial group called "agriculture, etc." or simply agriculture. The result was a total of six categories called "agriculture, etc.", manufacturing, transportation, wholesale and retail trades, finance, and business. A summary of this classification is in Table 3.

Clearly there is a status dimension incorporated into the industrial classification. For example, the first category includes agriculture and a number of other basic industries that are primarily composed of low status jobs. While there are some agricultural and construction executives, the bulk of the workers in this category are blue collar workers of different levels of skill. The business and public administration category includes mostly white collar workers along with some blue collar and some professionals.

There is no clear way of ordering these categories of industry. In order to measure the effects of industry, five dummy variables (to describe the six categories) were inserted into regression equations as a whole. In a case like this it is always necessary to designate one of the categories as a base, in comparison to which all the other industry effects are measured. The choice of this category is totally arbitrary, in terms of the mathematics involved, and hence is usually made on the basis of what "seems" a reasonable base category. The choice was made to use the "agriculture, etc." category as the base group.

The Means of Finding Jobs

For each job recorded, the respondent was asked to indicate how he found the job. The means of finding the jobs were classified into one of seven categories--through friends, family, public employment agencies, private agencies, advertisements, by promotion,

TABLE 3

SIX CATEGORY CLASSIFICATION OF INDUSTRY

NAME OF CATEGORY	FIRST DIGITS OF CENSUS CODE *	INDUSTRIES INCLUDED
Agriculture, etc.	0 and 1	agriculture, forestry, fisheries, mining and construction
Manufacturing	2, 3, & 4	durable and non-durable goods manufacturing
Transportation	5	transportation
Wholesale and retail trades	6	wholesale and retail trades
Finance	7 & 9	finance and public administration
Business	8	business and repair services, entertainment, professional

---

*See the Alphabetic Index of Occupations of Industries (1968 Revision), U.S. Dept. of Commerce, Bureau of the Census, Washington, 1968.

and a residual category that consisted mostly of jobs found through direct application. Some of these categories had very few cases in them so that a smaller classification with only three categories was created. The first category contained jobs found through family and friends, the second jobs found through agencies, advertisements and direct application, while the third consisted only of those obtained by promotion. The first of these groups included jobs found by speaking with friends and family--they are designated as jobs found by "personal" means. The second of the main categories consisted of the jobs found mainly on the initiative of the applicant, and these were called "direct" or "active" means. Two dummy variables were used to show jobs found by "direct" means and those found by promotion, the base category consisting of jobs found through "personal" methods.

Marital Status

Marital status is not simply a dichotomous variable, though it is used as such in the analysis here. Individuals were classified as "single" or married at each point in time. A single dummy variable showing the impact of an individual being married (in comparison to his being single) was inserted into the equations. Widowers, and those who were divorced and separated were included in the single category so that the group of married men included only those married at the time point in question. At the entry point almost all of the men in the single category had never been married, as we move further on in time the proportion of those that are single and had never married fell, while the numbers of divorced and separated men, and widowers rose (though the latter remained very small).

Moving

Geographic moves are treated only superficially in this analysis. We only deal with moves made between entry and the start of the first job, that is moves that might be strongly connected with entry. Many men joined the armed forces after entry and were stationed at bases far away from the towns and cities in which they grew up. These involuntary geographic moves were excluded from the set of moves as a whole. Furthermore all moves that covered a distance of less than ten miles were also excluded, on the grounds that they were unlikely to be of major significance for the first job held after entry.

A dichotomous variable was constructed to show the difference between men that made a geographic move of ten miles or more unconnected with military service and all others in the sample. One might legitimately ask why moves connected with armed forces participation were excluded. The decision was made on the following basis: if moving was a characteristic of certain individuals, we should find a correlation between the tendency to move between the end of the first job and the start of the second and the move after entry described above. This correlation was calculated with and without military service jobs included and was found to be much higher in the former case. Hence the logic of the definition.

A second variable was inserted as a measure of the effect of the distances of moves. It simply consisted of the distance of the move, in miles. Where the individual had not made any such move, he was scored zero on this variable.

Educational Attainment

One of the most important independent variables in this study is educational attainment. At each point in time men were classified into one of eleven categories of attainment ranging from "Four years or less" (of schooling) to "Ph.D. or professional". While the categories are unmistakeably ordered, there is no obvious way in which to convert them into a scale. We will find that, in terms of job prestige and wages, the marginal utility of educational attainment varies directly as the amount of schooling the individual already has. Thus the additional four years of schooling that separate high school graduates from college graduates is "worth" a great deal more than the four years of high school and less than the four years required to get a professional degree after college graduation.

The most accurate means of describing entry in regression equations would be by defining ten dummy variables, each measuring the difference between a particular category and the lowest one (this is arbitrary). In those cases where this sort of accuracy was desired, this scheme was used.

TABLE 4

MEASURES OF EDUCATIONAL ATTAINMENT

Category	Scored	Years of Schooling	Classification into 5 Categories
Four years or less	0	0-4	First
Five to seven years	1	5-7	First
Elementary school graduation	2	8	First
Some high school	3	9-11	Second
High school graduation	4	12	Third
Above + some vocational training	5	13-14	Third
One to three years of college	6	13-15	Fourth
College graduation	7	16	Fifth
Master's degree	8	17-18	Fifth
Some graduate school above Master's	9	17-19	Fifth
Ph.D. or professional degree	10	19-20	Fifth

In most cases a more compact set of education categories was used. The disadvantage of using the fully spread variable with dummy regressors is that many of the categories have very small numbers of occupants and that some categories are indistinguishable --for example, it is almost impossible to differentiate men with between five and seven years of schooling from elementary school graduates.

In most of the analysis, educational attainment was collapsed into five convenient categories--no high school, some high school, high school graduation (including those with some vocational training, in addition), some college, and college graduation. Four dummy variables, measuring the differences between the lowest category, no high school, and each of the four other levels, were entered as a block into the regression equations. This resulted in four regression coefficients showing the differences in prestige or wage or job duration resulting from the four higher levels of educational attainment.

There were instances in which the education variable was simply represented by its rank order, so that less than five years schooling had the value zero, high school graduation the value four, college graduation the value 7, etc. When educational attainment was the dependent variable, as when measures of the social class of the family or origin were regressed on educational attainment, the use of education in this form avoids the necessity of resorting to discriminant function analysis or uncertainty analysis.[17] While these techniques yield results comparable to those of multiple regression, for consistency regression methods were used throughout.

As Labovitz[18] shows, rank order categories can usually be treated as interval scales, further the precise coding scheme used, provided the rank order is retained, has very little impact on the values of ordinary regression statistics. The chief advantage of the dummy variable arrangement lies in the precise estimates of the regression coefficients for the major levels of education that were obtained. As an example we consider the variance explained in the occupational prestige score eight years after entry for whites. The "best" regression with ten dummy variables explained 39.5% of the variance; an eleven category linear regression produced an R-square of 36.0%; while the five category analysis of variance explained 36.3% of the variance. The differences are small, probably of the same order as the measurement error.

Family Background Variables

Four different variables were used as measures of the social class of the families in which the men were raised: the educational attainment of the respondent's father and of his mother, the number of siblings in his family and the occupational prestige score of his father. These four variables were included in and excluded from the regression equations as a block. The intercorrelation matrix revealed that the strongest association was between the two parents' educational attainment levels, both of which were measured on the zero to ten scale. The number of siblings in the family correlated negatively with all of the other variables.

---

[17] See Doris R. Entwisle and Dennis Knepp, "Uncertainty Analysis Applied to Sociological Data, in Edgar F. Borgatta and George W. Bohrnstedt, eds., Sociological Methodology 1970 (San Francisco: Jossey-Bass, 1970), pp. 200-216.

[18] Labovitz, Sanford, "The Assignment of Numbers to Rank Order Categories," ASR, Vol. 53, No. 3, June 1970, pp. 515-524.

There were fairly large numbers of missing cases. For whites, mother's education was missing 11.5% of the time, while father's education was missing 29.1% of the time for blacks. There were smaller amounts of missing data for the other variables, the examples above were the ones with the most missing data for each race. The "number of siblings" variable was virtually always present. The way in which missing data was handled throughout the rest of this study was to use the "pairwise present" matrix, i.e. the correlation matrix based on all the cases where both variables were present. In the present case it was decided to use a different procedure.

The "pairwise present" method assumes that the relationship between any pair of variables is best estimated from the cases where both were present. For the family background variables this tends to result in slight overestimates in the values of the substituted variables. The indication that a variable is missing in most cases means that the respondent had a low score on that variable. Thus in the case where, say father's educational attainment was not present, we should expect a value lower than the mean. This value could be estimated from the other variables--like mother's education. A set of prediction equations were generated to yield estimates for the missing data among these four variables. Thus if father's education was absent, a value predicted from the mother's education, the number of siblings, and the father's occupational prestige would be inserted. This necessitated the generation of regression equations to predict each variable or set of variables from those present. The main effect of this substitution for missing data was to slightly raise the intercorrelations among the four variables and to slightly lower their average values. The changes were very, very small and it appears that the "pairwise present" procedure would most likely have resulted in insignificantly different results. However, insomuch as the behaviour of pairwise present matrices in regression equations is very little known, we have probably contributed to the stability of the estimates when multiple regression techniques were used.

Limits of this Analysis

The variables described above all describe the activity of the individual, they measure how men interact with the labour market but none of the characteristics of that market. Specifically, temporal and regional variations in the nature of this market are not considered. Thus while we do examine the levels of personal skills, no indices of the nature of environment in which these skills come to bear have been presented. The supply of jobs and the occupational and industrial makeup of the job market in which individuals find their first jobs do influence the jobs they find. A college graduate in a small rural community is faced with a situation in which he must take a relatively poor job or move.

Clearly there are other equally good illustrations of this point. Three factors exert the major influence on the nature of the job market: region of the country, the urban-rural continuum, and time. The last of these might perhaps best be measured by the level of unemployment in the region where an individual is situated, a level that changes over time. These factors influence the pool of jobs that are available to men entering the labour force. Individual traits and these more general characteristics of the labour market interact with one another: there may be jobs available for men of one level of education but not of another. The focus on individual characteristics is a real restriction in the scope of this investigation.

Ideally we wish to study entry into the labor force, in fact this analysis deals with entry into the labor force of American men between 1945 and 1960. Without collecting more data there is no way of knowing whether the patterns we find hold in any other period of history. This is not to say that the results are only of historical interest, the respondents of this study are alive today and represent a good sample of men between the ages of thirty and forty and the relationship between their modes of entry into the labor force and the jobs they now hold is certainly of interest. What we hope, but cannot prove, is that the relationships between the variables defined in this specific historical period are similar to those that would be found for another cohort of men.

Finally there are a number of less existential difficulties potential in the results. Meaningful analyses can only take place when there are statistically adequate numbers of individuals with the characteristics we wish to study. To be very specific, the fact that there were only twenty-five black college graduates at entry means that the description of their activities will necessarily be more error prone than that of say white high school graduates of which there were three hundred sixty-five. A number of variables have categories with small numbers of individuals in them. At each point the numbers of cases are listed in tables and the reader is urged to constantly keep these numbers in mind when examining results.

Related to the problem of small numbers of individuals in some categories are the difficulties that develop from the selection of any set of categories. Some parts of the analysis, like that of industries, are based on an inherently limited conception of the variable under study. Classifying all industries into only six categories hardly allows for a subtle analysis. And this is not the object of the research presented here: very little is known about entry into the labor force and all we can hope to do is to maximize the returns from the set of data under study, and to develop a "feel" for what goes on during entry.

Multivariate Analytic Techniques

Almost by definition entry into the labour force is a multivariate problem. At each point in time numerous competing influences act on the variables describing the wages, occupational prestige scores, and durations of the jobs. The greatest part of this analysis consists of efforts to sort out these separate effects.

The principle multivariate technique used here is multiple regression. Unfortunately almost all of the relevant statistical theory has been developed for multivariate normal variable distributions. While the wage and occupational prestige variables are similar to normal distributions, many of the variables here and especially the dummy variables that take on only the values one and zero, are not at all close to the normal. There simply exist no adequate theoretical formulations of multivariate techniques for very irregularly distributed variables. Having said this, we can do little but proceed.

The estimates yielded by the regressions are indeed the best fits that can be obtained under the least squares assumptions. The difficulty is that the coefficients are not in fact "t" distributed so that the tests of significance become at best approximations. Furthermore the sampling errors tend to increase the variance of the regression estimates, though the exact extent of this effect has not been calculated. While the levels of significance yielded by the regression computations have been included in the tables reporting the results, the reader is urged to view them somewhat skeptically. In general then we can assume that the levels of significance reported are too high, that is coefficients that are reported as reaching statistical significance at the .05 level may only be significant at say .10, while those reported as significant at the .01 level are likely to be different from zero at the .05 level.

The model underlying our use of multiple regression is of a number of variables simultaneously impinging on a single dependent variable. The unique effect of one of these variables is defined as the amount by which the total explained variance drops when that variable is removed from the regression. In the course of this analysis the focus is not on single variables but on clusters of variables. Thus family background is measured by four separate variables, educational attainment is used in the form of four dummy variables, etc. Often several dummy variables are used to measure the effect of a single "variable", as in the case of education, industry, and the means of finding jobs. For the purposes of the regression equation each dummy variable is in fact a separate variable, no matter if it is one of a set of dummy variables describing some single nominal variable.

In order to deal with clusters of variables describing a single effect we define the unique variance attributable to the cluster to be equal to the amount by which the total variance drops when the cluster of variables is removed from the multiple regression equation. We should note that such a set of variables need not necessarily measure a single underlying dimension, as the four dummy educational attainment variables do. Thus quite dissimilar variables might be placed in the same cluster because they all occur or act at the same point in time.

While it is not possible to meet the rigourous statistical standards under which multiple regression theory has been developed, at each point in the analysis the effort will be made to minimize the assumptions made. Thus educational attainment is generally entered into a regression equation as a set of dummy variables in order to avoid assuming its impact to be linear. In the two chapters of the analysis following this one, where a number of variables are examined with educational attainment as a control variable, dummy variables are always used to eliminate ordering and linearity assumptions. Also interaction variances were calculated to give an indication of the extent to which the two variables (or rather sets of dummy variables) could be shown to act independently.

As the regressions become more complicated, in the later parts of the analysis, it is necessary to make more assumptions of non-interaction. In a twenty variable regression the number of conceivable interaction terms is so astronomically large that we can only assume that the variables act independently and proceed with the calculations. The earlier parts of the analysis do suggest that these assumptions of independence are justified.

The very carefully carried out bivariate regressions that include education and one other variable yielded very, very small estimates of the magnitude of the interaction variance.

In practice the main difficulty in the regressions lay not in interaction but in the high level of multicolinearity among the independent variables. In a typical bivariate regression of, say occupational prestige of the first job after entry on the respondents' educational attainment and at the start of that job and the industry of the job, we might find the two variables jointly explaining forty percent of the total variance, with education alone accounting for thirty-five percent of the variance and industry alone accounting for twenty percent of the variance. Thus the unique effect of educational attainment is twenty percent, of industry five percent, and the remainder cannot be uniquely assigned to either of these. This fifteen percent of the variance common to both independent variables is the result from the multicolinearity between the two sets of variables.

In the above case it is possible to separate the variance into two conventional unique effects and one part common to both variables. Should there be three independent variables (or three clusters of variables) the variance can be split into seven parts: the conventional unique effects for each of the three variables, three portions that can only be assigned to a pair of the three variables but not uniquely to either member of the pair, and a seventh portion that cannot be uniquely assigned to any of the other partitions. These variance must add up to the total explained variance. There are three possible pairs if the regression is performed with three variables. The unique effect of such a pair is simply equal to the amount by which the total variance drops when the pair is removed from the regression equation. The portion uniquely associated with the pair (but not with either variable in it) is obtained by subtracting the unique effects of the two variables from the total unique variance for the pair. Similarly the variance that can only be assigned to the three variables as a whole but not to any single variable or part of them is obtained by subtracting the three unique effects for the single variables and the three pairwise unique effects from the total variance, leaving the desired portion assignable only to all three taken together.

More generally this scheme can be extended to the case of N variables, or clusters of variables. The variance then falls into 2^N-1 separate categories, each one a combination of the presence or absence of each of the N variables omitting only the one case where all are absent. The procedure for and mathematics of this "partitioning" of the variance are found in Wisler,[19] with a more detailed description in Newton and Spurrell,[20] and in Rozeboom.[21] The division of the variance explained into these "partitions" or "overlapping variances" or simply "overlaps" makes it possible to give a precise description of the extent and nature of the multicolinearity present in a regression. Furthermore it is possible to draw substantive conclusions from the form of the partition that results.

---

[19] Wisler, Carl E., "Partitioning the Explained Variance in Regression Analysis, in George W. Mayeske, et. al., A Study of our Nation's Schools (Washington, D.C.: U.S. Dept. of H.E.W., Office of Education), pp. 345-360.

[20] Newton, R.G., and D. J. Spurrell, "A Development of Multiple Regression Analysis of Routine Data", Applied Statistics, Vol. 16, No. 1, pp. 51-64.

In general these partitions of the variance are all positive. However this is not necessarily the case. In the bivariate case it is possible to come up with regression examples where the addition of the second variable lowers the explained variance, usually due to its being strongly negatively related to the first independent variable. The same sort of effect can occur with three or more variables, in which case one or more of the partitions becomes negative.

There is an important distinction between the zero-order variance of a set of variables and their unique effect. The first of these is just the variance explained when that cluster alone has been inserted into the regression equation. The zero-order variance will in general be larger, often by a large factor, than the unique variance. Just as the difference between the raw correlation of a single variable and its standardized regression coefficient is a measure of the indirect effect of the variable, so the difference between the zero-order and unique variance of a cluster of variables can be used as a measure of the extent to which the impact of this set of independent variables flows through other variables in the regression.

---

[21] Rozeboom, W.W., The Theory of Abstract Partials: An Introduction," Psychometrika, Vol. 33, No. 2.

The other multivariate technique that is used here is path analysis. Its power lies in the ability to give form to the causal interrelationships between different variables. This kind of modelling is most useful when applied to a set of variables whose causal order is not known, or only partly known. However, in the present case, the variables are clearly ordered in time--the job held two years after entry can only be caused by and not the cause of earlier jobs. Thus our main use for path analysis is to summarize and give a more intuitive form to our model of the entry process. Unfortunately some parts of the analysis use such large numbers of variables that modelling, in the traditional sense where path diagrams are constructed, becomes unfeasible.

The Definition of Entry

Earlier in this chapter we pointed out the need for an unambiguous definition of entry into the labor force that would enable us to assign a unique entry point to each individual. The definition had to satisfy the following criteria:

1. Short term entry into the labor market, followed by a return to full time schooling, as occurred when an individual held a summer job, was not to be counted as entry into the labor force;

2. Entry had to be marked both by the individual's giving up full time schooling for an extended period of time;
3. The definition was not to be tied to chronological age, since entry into the labor force can take place at any age beyond the legal limit of compulsory school attendance; and
4. It had both to make sense and to be applicable to our data.

The definition that was chosen to satisfy these requirements was as follows: the point of entry into the labor force is that point in time at which an individual leaves full time schooling and enters the labor force for a period of more than sixteen months without re-entering full time education during that period. This definition purposely exempts summer employment and dropping out of school for one academic year plus a summer. It defines commitment to labor force participation as participation for a period longer than sixteen months.

Obviously there is a degree of arbitrariness in this definition, as in almost all operational definitions. Perhaps its major drawback lies in its treatment of military service as full time employment, so that a person's being drafted is interpreted as leading him to enter the labor force, even though he had intentions of resuming full time education after completion of his military service. However the fact that educational exemptions were given out rather freely during the period in question leads us to believe that the number of such cases was quite small.

The remainder of this study builds on this definition.

CHAPTER III

THE FIRST JOB AFTER ENTRY INTO THE LABOR FORCE

With a definition of entry into the labor force chosen, it is now possible to identify the characteristics of men as they enter and to examine the relationships between these characteristics and the first jobs that they held after entry. We first consider the distributions of whites' and blacks' ages and levels of educational attainment at the entry point. Throughout the rest of the chapter the focus is on the relationship between race and education and their impact on the quality of the first job and on other variables influencing these jobs.

A number of other variables will be introduced in the course of describing this first job after entry. Each will be examined in two ways, first as a product of educational attainment at entry and race, and second in terms of its impact on the quality of the first job. For example, in discussing the means of finding the first job, we will show that certain modes of locating jobs are used more often by whites than by blacks and that better educated individuals tend to find jobs in ways different from those with less education. While the means of finding the first job is a function of race and education, most of the variation is left unexplained by these two variables so that when we discuss the impact of all three of these variables on the quality of the first job, each can be expected to have some effect of its own.

This means of analysis, looking first at the way in which a third variable is influenced by educational attainment and race and then dealing with the way in which the three variables relate to job quality measures is applied to five separate variables that describe either the circumstance under which the job is found or some characteristic of the individual. The variables include the region of the country where the respondent is situated at entry, the means he used to find the job, the industry of that job, whether or not he made a geographic move to find the job, and his marital status at entry.

Some men took their first jobs in the armed forces and we will describe the relationship between entering via a non-civilian job and race and education. Last we deal with the factors influencing job duration and raises in pay during the course of the first job.

Educational Attainment and Age at Entry

Table 1 contains the distribution of whites and blacks among eleven levels of educational attainment at entry. It should come as no surprise to find that whites had more education than blacks. Almost a quarter of the black respondents had no high school at all, compared to 15.5% of the whites in this category. At the other end of the spectrum, 10.7% of the whites entered the labour force with college degrees, in comparison to the 3.4% black college graduates. Another way of looking at this race difference is to examine the rates of completion of high school and college, that is the proportion of men that obtained diplomas once they entered high school (or college).

TABLE 1

EDUCATIONAL ATTAINMENT AT ENTRY INTO THE LABOR FORCE BY RACE

Level of Educational Attainment	% of Whites		% of Blacks	
Less than 4 Years	1.6%		4.7%	
4-7 Years	4.7		13.1	
Elementary School Grad.	9.2		7.0	
TOTAL WITH NO HIGH SCHOOL		15.5%		24.8%
Some High School	21.0		35.2	
High School Grad.	42.2		29.4	
High School Grad. & Some Vocational	0.7		.5	
TOTAL HIGH SCHOOL GRADS.		42.9		29.9
Some College	9.8		6.5	
College Graduates	7.9		3.3	
Master's Degree	1.2		0.1	
Some Grad. or Professional	0.1		0.0	
Ph.D. or Professional	1.5		0.0	
TOTAL WITH COLLEGE DEGREE OR MORE		10.7		3.4
NUMBER OF CASES	850		738	

Only slightly over half, 53.5% of the blacks, who started high school went through to graduate by the time they had entered the labor force. In comparison, fully three-quarters of the whites who started high school completed it. This differential rate of success in high school is over and above the smaller numbers of blacks receiving any high school at all. Similarly 51.7% of the whites who entered college in the pre-entry period obtained degrees before entry, while 34.2% of the entering blacks obtained college diplomas. Unfortunately no other source of data is available to check the accuracy of these results, census estimates are not based on any definition of entry and so do not yield results comparable to these.

There was a very strong relationship between educational attainment at entry at age at that point. Measuring age at entry in months and education along the zero to ten scale, the simple correlations between the two variables were 0.893 for whites and 0.698 for blacks. In order to examine this relationship a tabulation of the mean age, its median, and the standard deviation of age at entry within each of the five educational attainment categories is presented in Table 2.

For the sample as a whole the mean age at entry for whites was 18.3 years compared to a mean of 17.3 years for blacks, the difference clearly due to the higher average level of education of whites. Within each category of education the average ages at entry for whites and blacks are very close to one another. The largest

TABLE 2

CHARACTERISTICS OF RESPONDENTS' AGE (IN YEARS) AT ENTRY INTO THE LABOUR FORCE, BY RACE AND EDUCATIONAL ATTAINMENT AT ENTRY

EDUCATIONAL ATTAINMENT AT ENTRY	MEAN AGE AT ENTRY		MEDIAN AGE AT ENTRY		STD. DEVN. OF AGE AT ENTRY		NUMBER OF CASES	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
No High School	15.6	15.0	15.3	15.0	1.62	1.86	132	184
Some High School	17.0	17.1	16.9	17.0	1.39	1.81	179	260
High School Graduate	18.3	18.3	18.1	18.3	1.20	1.76	365	221
Some College	19.9	20.1	19.8	19.9	1.50	1.13	83	48
College Graduate	23.3	22.1	22.9	21.9	2.23	1.81	91	25
TOTAL	18.3	17.3	18.0	17.3	1.44	1.76	850	738

differences, in the no high school and college graduate categories appear because of the differing distributions of whites and blacks within these categories. Thus over a quarter of the whites in the college graduate category had M.A. degrees or better, while almost all of the blacks in this group had only college diplomas and this resulted in an average age at entry of 23.3 years for whites and 22.1 years for blacks. In the three middle education categories, some high school, high school graduation and some college, the average ages at entry of whites and blacks differed by less than three months.

For each of the race x educational attainment cells in Table 2, the median age was within 0.4 years of the average, showing the distributions to be of a very symmetric form. The standard deviations were of the order of one and a half years, they tended to be somewhat larger for blacks than for whites. This larger variance for blacks explains the lower level of correlation between age and education at entry among blacks. In practice these two variables are largely indistinguishable, at the substantive level too they appear to be measures of the same concept.

Quality of the First Job

The quality of the job a man found after entering the labour force was strongly influenced by his level of educational attainment, and to a lesser extent by his race. In Table 3 we present the average occupational prestige scores and starting wages of these first jobs for each of the eleven education categories. The prestige scores are discussed first.

For both races there was little difference in the average prestige scores among the three lowest categories of educational attainment, less than four years schooling, five to seven years, and elementary school graduation. These jobs were very poor indeed, two typical examples of the occupations included would be parking attendants and elevator operators. Even at this low level of education whites were slightly better off than blacks and the differences between whites and blacks increased as the level of education increased.

For the range of education as a whole there is a non-linear relationship between education and the prestige score of first job. Thus, for whites we find that the average prestige score was 22.0 for men with less than four years schooling, increased by 1.1 points to a level of 23.1 for elementary school graduates, by another 5.1 points (to 28.2) for high school graduates, and by 12.7 prestige points on top of this (to 41.8) for college graduates. The final jump, from college graduation to a Ph.D. or professional degree was to an average prestige score of 61.8, up a full twenty points! Thus it is clear that each additional unit of education is worth more than the last. This is true for both whites and blacks, but the curve was far steeper for whites so that the difference between the average prestige scores of whites and blacks within each level of education increased with increasing education. We find that the jobs of whites with high school diplomas averaged 2.2 points better than those held by their black counterparts, while the difference was twice as large, 5.0 points, for college graduates.

The comparison of these averages can only provide a partial description of the relationship of educational attainment to the prestige score of the first job. It is also necessary to provide some notion of the dispersion of these values around their averages, in other words a measure of the variance explained by the education variable. The prestige score was therefore regressed on ten dummy variables measuring education. For whites educational attainment explained a total of 31.6% of the variance in the prestige values, compared to 17.7% for blacks! Thus education is a very much better predictor of occupational prestige for whites than for blacks.

Not only did blacks receive poorer jobs, on average, than whites with the same level of education, but they could be less certain of their training resulting in a good job. The impact of this finding at the individual level is not entirely clear: we might reason that on the one hand blacks cannot make as much of their education as whites, but then again blacks are likely to have lower levels of education and so it is of some advantage to poorly educated blacks to have less of the quality of the jobs they find explained by their schooling. The fallacy of this argument lies in the fact that poorly educated blacks have just as much of a chance to find jobs poorer than what they could expect on average from the education they have obtained. The impact of the weaker relationship between education and occupational prestige for blacks is to make the occupational system a less meritocratic and less predictable one for them than it is for whites.

By combining the prestige scores of whites and blacks and suitably weighting the cases, it is possible to derive estimates of the impact of race on occupational prestige in the American population as a whole and of the difference between whites and blacks, controlling on the distribution of education in both races. The procedure is simply to regress the occupational prestige scores on educational attainment, as measured by ten dummy variables, and race as represented by a single variable with the value zero for whites and the value one for blacks. The weighting required to match this population in which blacks are oversampled to the American population is described in the previous chapter. By reducing the proportion of blacks in the regression to around one-nineth of the total population, the effect of race must be of relatively small magnitude. In this case the impact of race is more clearly reflected in the regression coefficient for the dummy variable than by the variance it explains. This regression is presented in Table 4.

The two variables explained 31.6% of the variance in occupational prestige, the unique contribution of race was 0.3%, of education was 30.2%, and the remaining 1.1% of the variance was common to the two variables. There was relatively little interaction variance--the insertion of the ten possible interaction variables explained only an additional 0.1% of the variance. For the population as a whole, high school graduation was "worth" 4.0 prestige points, some college 10.2 points, and college graduation 19.3 points. Because almost ninety percent of the reweighted population were whites, these values much more strongly reflect the impact of education on the white population than on the minority of blacks. The race regression coefficient was -2.2 prestige points, this is the difference between the jobs whites and blacks with the same levels of education can expect to find. The average prestige score for the white population as a whole was 29.3 points, compared to 24.8 points for blacks; so this difference of 4.5 points falls to 2.2 points if the effect of educational attainment is removed by this regression technique. This suggests that approximately half of the difference between the first job prestige scores of whites and blacks is accounted for by job discrimination and the balance by unequal levels of educational opportunity.

Before moving on to a parallel consideration of the starting wages of these first jobs, let us examine for a moment the impact of the increasing marginal utility of additional units of education. American society as a whole allocates job status in a very non-linear fashion. The increasing marginal utility appears to offer more of an incentive to continue their education to men with high levels of education initially. Thus an individual contemplating whether he should finish high school would gain only an average of two prestige points by doing so whereas his counterpart who is deciding whether or not to complete his college education is lured on by an average prestige gain of almost ten points over what he could expect in a job he could find with some college only. Apparently the occupational prestige scale, as it exists in the minds of Americans, tends to present greater rewards to men that already have high levels of education and in the process discriminates against those with low levels of education.

In Tables 3 and 4 tabulations similar to those described above for the occupational prestige variable are presented with the starting wage of the first job as the dependent variable. The averages of the starting wages do not show nearly as uniform a pattern when tabulated against educational attainment as was true for prestige scores. The relationship of the wages to the eleven category educational attainment variable revealed a rather linear pattern for both races. At the three lowest levels the average wages of blacks were larger than those of whites while (with a couple of minor exceptions) for the categories from some high school upward, whites had higher average wages than their black counterparts. Thus we find that elementary school graduates who were black averaged $7 per month more than whites, while white high school graduates averaged $28 per month more than black high school graduates, the difference was $24 in favor of whites for college graduates.

Even in 1959 dollars, the wage rates of these first jobs are very low indeed. Men with less than five years schooling found jobs paying around $100 a month; that the level should be so low is undoubtedly a function of their youth and inexperience, those entering with this little education averaged only fifteen years of age. Even for high school graduates where the figures were $249 for whites and $221 for blacks and for college graduates where the corresponding wages were

TABLE 3

OCCUPATIONAL PRESTIGE AND STARTING WAGE OF FIRST JOB AFTER ENTRY INTO THE LABOUR MARKET

EDUCATIONAL ATTAINMENT	AVERAGE OCCUPATIONAL PRESTIGE SCORE (IN PRESTIGE POINTS)		AVERAGE STARTING WAGE (IN DOLLARS PER MONTH)	
	Whites	Blacks	Whites	Blacks
Less than 5 Years	22.0 (14)	21.3 (35)	$ 95 (7)	$100 (23)
5-7 Years	22.0 (40)	21.1 (97)	115 (30)	137 (71)
Elementary School Graduate	23.1 (77)	21.9 (52)	167 (59)	174 (41)
Some High School	26.5 (178)	23.9 (258)	228 (122)	200 (175)
High School Graduate	28.2 (357)	26.0 (217)	249 (275)	221 (168)
High School Graduate Some Vocational	29.1 (6)	28.8 (4)	163 (1)	277 (1)
Some College	32.7 (82)	29.9 (48)	271 (55)	279 (29)
College Graduate	41.8 (66)	36.8 (24)	321 (49)	297 (17)
Master's Degree	52.1 (10)	78.3 (1)	512 (9)	250 (1)
Some Graduate or Professional	53.9 (1)	-	350 (1)	-
Ph.D. or Prof.	61.8 (13)	-	361 (10)	-
Average	29.3 (844)	24.8 (736)	242.6 (618)	199.9 (526)
In Armed Forces	16.8%	16.3%		
Missing	0.7%	0.3%	10.5%	12.5%

TABLE 4

REGRESSION OF THE OCCUPATIONAL PRESTIGE AND THE STARTING WAGE OF THE FIRST JOB ON EDUCATIONAL ATTAINMENT AND RACE

		Variance* in Occupational Prestige	Variance in Starting Wage
Zero Order Effects:	Race	1.4%	0.9%
	Education	31.3	19.0
Unique Effects:	Race	0.3	0.1*
	Education	30.2	18.1
	Overlap	1.1	0.8
Total Without Interaction		31.6	19.0
Unique Interaction Effect		.1*	0.3*
Total With Interaction		31.7	19.3
		Regression Coefficients (In Prestige Points)	Regression Coefficients (In Dollars Per Month)
Main Effects:			
Effect of Being Black		-2.2	-16*
Effect of:	4-7 Years	0.0*	22*
	Elementary Grad	0.8*	67*
	Some High School	4.0	124
	High School Grad	5.8	146
	Vocational	6.9*	76*
	Some College	10.2	171
	College Graduate	19.3	219
	Master's Degree	30.1	406
	Some Grad. & Prof.	31.5	247
	Ph.D. or Professional	39.4	258

*All Betas and variances are significant at .05 except those asterisked.

$321 and $297 per month these incomes appear to be very low by current standards. Their low appearance could reflect a change in the pay rates at entry. Unfortunately there are no current estimates of these values available.

Educational attainment accounted for substantially less of the variance in starting wages than was the case for the prestige values, though here again education was a better predictor for whites than for blacks. The regression of starting wage on the eleven category education variables explained 19.1% of the variance for whites, only 13.6% for blacks. Once more an investiment in additional units of education offered a surer payoff to whites.

When all the cases were combined in order to yield population estimates of the impact of education and race on wage (see Table 4) race was found to uniquely account for 0.1% of the variance, educational attainment for 18.1%, and the remainder of 0.8% could not be uniquely assigned to either of the variables. The cost of being black, controlling on educational attainment, was $16 per month (the value of the race regression coefficient). Again there was very little interaction between the race and education variables.

At this point it is instructive to make a comparison between the starting wages and the occupational prestige scores of the first job. These two variables have very different relationships to race and education. While the marginal utility of additional units of education rapidly increased with increasing education in terms of prestige, it was relatively constant in terms of wages. In both cases the differences between blacks and whites with educational attainment controlled grew larger at higher levels of education. In the case of wage, but not of occupational prestige, blacks came out ahead at the very lowest levels of education.

For these initial jobs, the differences between whites and blacks with relatively low levels of education appear to be mainly in terms of wages, while at the higher levels prestige differences predominate. At the very highest levels of education starting wages appear to decrease (though the case numbers are very small and this could be random error) while the prestige values still increase strongly. This suggests that the structure of social rewards in the labor market follow this pattern, with increased income serving as the reward at low levels of social class, and especially for blacks that tend to be concentrated at these levels, and that middle-class individuals are motivated by and receive more abstract prestige rewards.

Should this be the case, the implications are not at all clear. It does suggest that the labour market tends to see people as operating in different ways, according to their social class and race.

Finding the First Job

After entering the labor force, many men did not find jobs immediately but spent one or more months unemployed and looking for work. The purpose of this section is to examine the patterns of unemployment at this point, especially as they relate to educational attainment and race.

According to the definition we have used for entry, it is possible for a man to start the first job he holds after entry at some point before he has entered. This could occur when a man held a full-time job while simultaneously attending school on a full-time basis. Should he then stop going to school while continuing to work, the job would clearly have started before entry. Equal proportions for whites and blacks, just less than a tenth of the men in the sample, fell into this category.

Table 5 presents a tabulation of the average length of unemployment between entry and the start of the first job for whites and blacks each split into five categories of educational attainment at entry. These are highly skewed distributions--no one could have been unemployed for a negative length of time! In all but one of the ten cells formed from the education and race variables, a majority of the men found jobs within the first month after entry and so were entered as unemployed for zero months (the manner in which the questionnaire was constructed yielded dates that were accurate only to the month and so there is an indeterminacy of up to about four weeks in each date).

Among men entering the labour force with no high school, whites experienced an average of 5.89 months unemployment, compared to 5.59 months for blacks. Only at this lowest level of education was the unemployment of whites greater than that for blacks. For higher levels of education the average white unemployment time fell considerably, to 3.53 months for men with some high school, 1.59 months for high school graduates, 0.76 months for men with some college; and then it rose slightly to 1.96 months for college graduates. The periods of unemployment were much longer for blacks. Thus blacks with some high school averaged 3.97 months unemployment, compared to 2.30 for high school graduates, 4.54 for men with some college and 3.28 for college graduates.

It is clear that very different relationships between educational attainment and unemployment in this period are found for whites and blacks. For whites the average length of this period declined steeply with increasing education until the college graduates are reached when it turned upward. Among the black men, however, high school graduates were the best off, though the period for which they were unemployed, averaging 2.30 months, was far longer than the lowest value for whites. Beyond this educational attainment level there was a steep increase in the time required to find a job, so that college graduates are little better off than men with some high school.

A closer look at the marginal distributions of this variable, shown at the bottom of the same Table 5, reveals the same pattern. About sixty percent of the respondents without any high schooling found their first jobs within a month of entering the labour force and approximately a quarter of this group had not found jobs after six months search. At this low level of education blacks were more able to find jobs quickly (we have shown above that there is little difference in the quality of

TABLE 5

TIME FROM ENTRY TO START OF FIRST JOB BY RACE AND EDUCATION (IN MONTHS)

	No High School		Some High School		High School Graduation		Some College		College Graduation	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
Average time (in months)	5.89	5.59	3.53	3.97	1.59	2.30	.76	4.54	1.96	3.28
Median (in months)	0	0	0	0	0	0	0	0	0	1
Std. Devn. (in months)	12.40	12.40	10.02	11.06	4.57	5.78	2.48	18.74	6.19	4.72
Percent getting job in 1 mo.	57.5 %	63.0%	69.8%	71.1%	64.6%	59.2%	81.9%	77.0%	64.8%	36.0%
In 1-2 mos.	12.2	8.7	10.0	6.5	20.2	25.3	10.8	10.4	18.7	28.0
In 3-6 mos.	5.3	6.5	6.7	4.6	8.5	9.0	3.6	2.0	9.9	24.
More than 6 mos.	25.0	21.8	14.5	17.8	6.7	6.5	3.7	10.6	6.6	12.0
N	132	184	179	260	365	221	83	48	91	25

these jobs across race). A smaller proportion of the whites, 57.5% of those with no high school, compared to 63% of the blacks found jobs within a month of entry. The fairly large case bases on which these estimates are based and the consistency of the differences suggest that the black-white difference is a real one.

Among individuals with some high school, almost equal proportions of whites and blacks, about 70%, managed to find jobs within a month of entry. Beyond this level of education it is clear that whites found jobs more quickly. For high school graduates, 64.6% of the whites and 59.2% of the blacks found jobs in the first month. Among college graduates 64.8% of the whites but only 36% of the blacks located jobs within a month of entry; 16% of the whites and 36% of the blacks with college degrees required more than four months to find a first job after entry.

This material presents a rather interesting pattern. At the lowest level of education blacks had no more difficulty than whites in finding jobs, they even did a little better. However, at higher levels of education blacks needed much longer to find jobs than whites--the advantages of more education for whites, that enabled them to find jobs more quickly after entry, did not accrue to blacks with the same training! The picture that emerges is that of a labor market that readily accepts blacks with low levels of skills (or at least they are no worse off than whites) but has difficulty finding places for blacks with more education.

The Duration of the First Job

The range of durations of the first job held after entry provides an important indication of the significance of this job. Should these jobs tend to be of short duration, the obvious implication would be that they are not important to the individual. The longer the durations are, the stronger the temporal commitment they indicate on the part of the men and the more importance that should be assigned to them. The average durations of jobs for men in the ten race x educational attainment categories along with a description of these distributions are presented in Table 6.

Among these ten groups, the average durations for the first job varied from 21.5 months to 46.4 months. Thus it appears that these first jobs occupy a significant portion of the period in which men make the transition from full-time schooling into full-time members of the labour force. The average duration for whites was 23.2 months while for blacks it was significantly longer--35.2 months! The same curvilinear relationship between educational attainment and duration of the first job appeared for whites and blacks: men with the lowest level of education (no high school) had the longest average duration; this decreased with increasing education reaching a minimum value for high school graduates for whites, for men with some college for blacks; at the very highest levels of education there was a slight tendency for the average to rise.

TABLE 6

DURATION OF THE FIRST JOB AFTER ENTRY BY RACE AND EDUCATIONAL ATTAINMENT

	No High School		Some High School		High School Graduation		Some College		College Graduation	
	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
Average time (in months)	34.7	46.4	25.1	35.4	21.5	26.9	23.6	26.6	25.2	28.2
Median (in months)	24	31	15	25	11	21	17	24	16	22
Std. Devn. (in months)	37.5	46.4	25.1	35.4	29.2	26.9	29.4	19.8	31.9	42.8
Percentage 1-4 mos.	13.6%	3.2%	15.0%	7.6%	24.1%	14.9%	18.0%	12.5%	27.4%	24.0%
5-8 mos.	21.4	8.7	14.6	7.7	13.9	11.8	14.5	8.3	12.1	8.0
9-2 mos.	8.3	9.8	13.9	11.6	14.0	9.0	7.2	10.4	9.9	8.0
13-36 mos.	31.9	38.0	35.8	39.9	27.8	36.2	40.9	38.0	34.1	48.0
37 mos. or more	34.8	40.3	20.7	33.2	19.2	28.1	19.4	29.2	18.6	16.0
Number of Cases	132	184	179	260	365	221	83	48	91	25

For whites, the average duration of the first job after entry for men with no high school was 34.7 months, dipping to 21.5 months for high school graduates and rising slightly to 25.2 months for college graduates. The corresponding results for blacks are 46.4 months for men with no high school, 26.6 for those with some college and 28.2 months for college graduates.

While a definite pattern exists, educational attainment explained very little of the variance in duration. Within the ten groups above the variances were very large, ranging from 19.8 to 46.4 months. A regression of the duration of the first job on the eleven category educational attainment variable accounted for only 3.8% of the variance for whites, 4.7% for blacks. We might note that the higher level of prediction found here for blacks is the exact opposite of the pattern that was found for occupational prestige and wage where education was a much better predictor for whites.

The distributions of durations of these first jobs were highly skewed. The medians averaged about ten months less than the mean values, a sure indication that a few large values pull the averages upward. Another characteristic of these distributions is the numbers of respondents with very low first job durations, indicating a very low commitment to the first job. There was a uniform tendency for men with higher levels of education to be more likely to hold these jobs for four months or less. For whites, 13.6% of the men with no high school ranging upward to

27.4% of the white college graduates were in this lowest duration category. The proportions of blacks holding their first jobs for four months or less ranged from 3.2% of those with no high school to 24.0% of the college graduates. At the opposite end of the scale, 34.8% of the whites with no high school and only 16.0% of the white college graduates stayed on their first jobs for three years or more. The corresponding proportions for blacks were 40.3% and 16.0%.

Two clear findings emerge from this discussion. First, it is apparent that for large numbers of men this first job constituted a considerable commitment in time. Second, we found that job mobility in this period was positively related to the individual's level of educational attainment. Thus the poorly educated whites and blacks are shiftless only to the extent that they shift less from one job to another. The traditional picture of blacks and of lower class whites as being unable to stick with a job appears to be the opposite of reality!

Finding a First Job in the Military

Some of the men in the sample did not find their first jobs after entry in the civilian labor force but instead entered military service. In two ways these jobs are atypical: their durations are relatively fixed with a minimum value of 24 months, and could be increased only by 12 month units, and virtually all of these jobs have the same prestige value (30.0) and no defined wage. Men joining the armed forces immediately after entry entered the lowest ranks of enlisted men and received the same prestige score. The proportion of men at each of the five levels of educational attainment that enter the armed forces as their first jobs are tabulated in Table 7.

Almost exactly the same proportions of whites and blacks joined the military service as their first jobs after entry--16.8% of the whites and 16.3% of the blacks. At the two lowest levels of educational attainment whites were more likely to use military service as an entry route while at the three higher levels blacks were more likely to serve at this early point in their careers. For both whites and blacks the two highest rates of service were for men with some college and those with some high school. This strongly suggests that men drop out of or are drafted out of school into the army. The contrast was especially striking for whites where 28.9% of the men with some college enter the military as their first jobs in comparison to only 16.4% of the college graduates; 24.1% of the whites with some high school used this mode of entry in comparison to only 15.0% of the high school graduates. The figures for blacks were similar.

The interesting question is the extent to which these periods of military service were voluntary. While the original data included a variable indicating whether each period of military service was the result of voluntary enlistment or of a man being drafted, it was found to be quite unreliable as many

TABLE 7

PROPORTION OF INDIVIDUALS WHOSE FIRST JOB WAS IN THE ARMED FORCES, BY RACE AND EDUCATIONAL ATTAINMENT AT ENTRY

	Whites	Blacks	Total
No High School	4.5%* (132)	0.5% (184)	2.2% (316)
Some High School	24.1 (179)	21.0 (260)	22.3 (439)
High School Graduation	15.0 (365)	18.8 (221)	16.4 (586)
Some College	28.9 (83)	31.1 (48)	29.7 (131)
College Graduation	16.4 (91)	28.0 (25)	18.9 (116)
Total	16.8 (851)	16.3 (738)	16.6 (1589)

of those that enlisted did so under the threat of the draft. There is a useful surrogate for this variable--the length of the period of unemployment between entry and the start of the first job. If the men that entered the army as a first job were generally drafted we should expect this period to be of shorter length for men entering the armed forces than for those going into civilian occupations, this should especially be the case if men were being drafted out of high school and college. On the other hand if the periods of unemployment were longer for men entering the armed forces the conclusion would be that men tend to enter the armed forces when they cannot find anything else to do.

This tabulation was prepared and showed essentially no difference in the unemployment durations for men entering civilian and military jobs. There was a very weak tendency for the unemployment period to be longer for men entering the armed forces. Thus we cannot conclude that the draft plays a role in pulling men out of school. It appears that men with some high school and some college have really dropped out of school and then drifted into the armed forces.

At the very lowest level of educational attainment very small numbers of the men, 4.5% of the whites and 0.5% of the blacks entered armed forces. The average age of these men who entered with no high school was only about fifteen, far too young to be eligible for military service. It is likely that many of them were incapable of passing the relatively simple intelligence tests required of men entering the armed forces.

It appears that jobs in the armed forces are much like any other jobs. But what are we to make of the rather odd pattern of more whites with no high school and some high school entering the armed forces and more blacks with high school diplomas and above entering? For a rather complicated reason it appears that this works to the relative advantage of whites. With a prestige score of 30.0, a job in the armed forces is better in prestige than the one men in the two lowest educational attainment categories could expect in a civilian job, about equal to the average prestige for high school graduates and lower than the averages for men with some high school and above. Thus whites and blacks in the lowest education category benefit by entering the armed forces and we find more whites in these categories do so, at higher levels entering the armed forces put a man in a job that is not as good as he could expect in civilian life and so the larger proportion of blacks in this category suffers in prestige terms by entering the armed forces.

Finally we should consider the impact of these military jobs of fixed prestige score on the regressions of occupational prestige scores on educational attainment at entry. The exclusion of these jobs, jobs that had no variance across education, brought about a relatively large increase in the variance explained by education. The 31.6% of the variance explained for whites rose to 37.0% with the military jobs removed, while the value of 17.7% for blacks rose to 19.1% without the armed forces occupations. Including armed forces jobs raised the average prestige scores for all the blacks from 23.8 to 24.8 while for whites the difference was insignificant--the average occupational prestige score with the armed forces jobs included was 29.3, compared to 29.2 without them.

Region Where Entry Takes Place

This is the first of several analyses of the effect of different variables on the quality of the first job after entry. The form of this investigation will be applied to the means of finding the first job, geographic moves, industry of the first job, etc.

In order to determine the impact of the region of the country where a man entered the labour force the United Status was divided according to the nine Census regions. Combining this variable with educational attainment, divided into five categories, forty-five cells were created. Within each of these cells it was possible to compute the average prestige score and starting wage of the first job. The small number of individuals falling in each cell, coupled with the sheer complication of analyzing such a large table, make the use of a summary statistical method the only reasonable way to proceed.

There are nine Census regions and so it was necessary to use eight dummy variables to measure region. The base category, for which all the variables had the value zero, was chosen as the "Pacific" region. The starting wage of the first job was then regressed on these eight dummy variables and the four dummy education variables. Men whose first jobs were in the armed forces were excluded from the calculation on the grounds that armed forces jobs did not vary between regions.

Holding educational attainment constant, the effect of region of the country on the starting wage of the first job was statistically significant for both whites and blacks. For whites, region uniquely accounted for 6.3% of the variance in the starting wage of the first job, education uniquely accounted for 13.8% of the variance and the overlapping portion was only 2.0%. For blacks the unique effect of region was 7.3%, of of education 7.2%, and the overlap was 3.4%. The interaction variances were insignificant. It is clear that the impact of region is stronger for blacks than for whites and that it is more strongly related to education for blacks too. The regression is described in Table 8.

The dummy regressions were calculated using the no high school education level and the "Pacific" region as the base categories so that all the coefficients are relative to these categories. For both races the Pacific region was the highest paying, the eight regression coefficients comparing the other

TABLE 8

REGRESSION OF THE STARTING WAGE OF THE FIRST JOB ON EDUCATIONAL ATTAINMENT AT ENTRY AND GEOGRAPHIC REGION WHERE THE FIRST JOB WAS FOUND, BY RACE

		Variance in Starting Wage of First Job	
		Whites	Blacks
Zero-order Effects:	Education	15.8%	10.6%
	Region	8.3	10.7
Unique Effects:	Education	13.8	7.2
	Region	6.3	7.3
	Overlap	2.0	3.4
Total Without Interaction		22.1	17.9
Unique Interaction Effect		3.8	3.8
Total With Interaction		25.9	21.7
		REGRESSION COEFFICIENTS (IN DOLLARS)	
Education:	Some High School	68	46
	High School Grad.	83	60
	Some College	114	91
	College Grad.	194	146
Region†:	Mountain	- 42*	-137*
	West North Central	- 91	-125*
	West South Central	- 77	-131
	East North Central	- 40*	- 55*
	East South Central	-127	-116
	Mid-Atlantic	- 79	-64*
	South Atlantic	-110	-117
	New England	-100	- 71*
Regression Constant		232	258
Number of Cases		590	515

†All of these values are relative to the "Pacific" region.

eight regions to this one were all negative. For whites the Mountain, Mid-Atlantic and West South Central regions were the next highest paying, the lowest paying regions were the East South Central and South Atlantic. For blacks the New England, East North Central and East South Central were closest in pay to the Pacific region. The Mountain, West South Central and West North Central were the lowest paying regions for blacks.

If occupational prestige is taken as the dependent variable and the same regression performed, region only accounts uniquely for 0.5% of the variance for whites, 1.3% for blacks. Thus the impact of region appears to be almost entirely in terms of wages and not prestige scores. Why should this be so? What it suggests is that if an individual has a fixed level of education, the skill level of his first job is pretty much determined by education and his race but that he can hope to find the same kind of job in another region at higher pay. This appears to be more strongly the case for blacks than for whites, as region has more impact on the wages of the former group. We now move to consider a number of other variables.

Means of Finding the First Job

The means of finding the first job after entry was classified into six categories: through family, friends, public and private agencies, advertisements, and by direct application. For virtually all the respondents, this was the first job held after a period of full-time schooling and so they could not be promoted into these jobs. The men that found their first jobs in the armed forces were excluded from consideration here on the grounds that these non-civilian occupations were not entered through any of the conventional job seeking channels. Significant numbers of responses were missing--13.5% of the total for whites, and 8.5% for blacks and these individuals were excluded from the analysis.

Table 9 presents a tabulation of the distribution of the means of finding first jobs for whites and blacks in each of the five educational attainment categories. In this table the distribution of the means variable were also aggregated into two categories: "personal" (through family and friends) and "direct" means (all others). Among these aggregated proportions a rather simple pattern appears; for both whites and blacks the tendency was for men with higher levels of educational attainment to use direct means more frequently in finding jobs, personal means less frequently. Put another way, the men with more education are more likely to use universalistic means of finding jobs.

The trend was a strong one, 71.9% of whites with no high school used "personal" means to find their first job compared to only 55.6% of white high school graduates compared to only 31.9% of college graduates. For blacks the corresponding proportions were 73.6%, 52.1% and 17.7%. This decline resulted from both the "personal" channels being less used by men with higher levels of educational attainment. For both races, around half of the

TABLE 9

THE MEANS OF OBTAINING THE FIRST JOB AFTER ENTRY BY RACE AND EDUCATION ATTAINMENT AT ENTRY

		Friends	Family	Total "Personal" Means	Public Agency	Private Agency	Ads.	Direct Applc.	"Direct" Means	Number of Cases
WHITES	No High School	25.4%	46.5%	71.9%	1.8%	0.0%	1.8%	24.6%	28.1%	114
	Some High School	28.6	29.4	58.0	1.7	1.7	5.0	33.6	42.0	119
	High School Grad.	25.6	30.0	55.6	3.7	2.2	5.9	32.6	44.4	273
	Some College	10.0	34.0	44.0	2.0	2.0	8.0	44.0	56.0	50
	College Grad.	15.2	16.7	31.9	3.0	7.6	3.0	54.5	68.1	60
	TOTAL	24.0	31.8	55.8	2.7	2.2	4.8	34.6	44.2	622
BLACKS	No High School	22.0	51.6	73.6	0.6	1.3	1.3	23.3	26.4	159
	Some High School	38.7	24.9	63.6	2.2	0.0	2.2	32.0	36.4	181
	High School Grad.	27.9	24.2	52.1	5.5	1.2	7.3	33.9	47.9	165
	Some College	33.3	16.7	50.0	3.3	0.0	3.3	43.3	50.0	30
	College Grad.	5.9	11.8	17.7	11.8	5.9	0.0	64.7	82.3	17
	TOTAL	27.4	31.5	58.9	3.1	0.9	3.4	31.7	41.1	552

first jobs of those with no high school were found through family connections, a proportion that fall steeply for men with more education. These very large percentages are not unreasonable as the men in this lowest educational attainment category averaged only about fifteen years of age on entry and one suspects that a large number of these jobs were in family owned enterprises like farms.

The numbers of jobs found through friends were very small for men that graduated from college. Neither public nor private employment agencies were used very frequently. There was a weak tendency for men with more educational attainment to use these agencies. Whites appeared to use private employment agencies in preference to public ones, while blacks used the latter more often. The small numbers of cases make these conclusions rather unreliable. About five percent of these first jobs were found through advertisements by the whites while a somewhat smaller proportion of the blacks used this means of finding a job. The use of advertisements was concentrated at the intermediate levels of education.

About thirty-five percent of these first jobs were found by direct application. The proportions of whites and blacks using this method increased uniformly with increasing educational attainment. For both races, a quarter of those with no high school, a third of the high school graduates, and well over half of the college graduates found their first jobs through direct application.

While a clear relationship appears between the means of finding the first job and educational attainment at entry we cannot yet conclude that the means better educated men use to find their first job are "better", i.e. that they resulted in higher quality jobs. In order to test this proposition the occupational prestige score of the first job and the starting wage of that job were regressed on educational attainment at entry and a set of five dummy variables describing the means used to find the first job. The impact of these different means of finding a first job were all relative to the set of jobs found through friends. These regressions are described in Table 10.

Over and above the effect of education, only 1.7% of the variance in the occupational prestige score of the first job for whites and 1.6% for blacks could be uniquely attributed to the means variable. There was some tendency for the effect of education and means of finding the job to overlap. For whites and blacks, jobs found through members of the family were the worst, followed by those located through friends. The active means did appear to result in slightly higher prestige jobs. Direct application seemed a more fruitful means of locating a first job for whites than for blacks where it was no better than using the help of friends.

The effect of the means of finding the first job on the starting wage of that job was also small. It uniquely explained 0.9% of the variance for whites, 0.8% for blacks. Jobs found

TABLE 10

REGRESSION OF THE OCCUPATIONAL PRESTIGE SCORE AND STARTING WAGE OF THE FIRST JOB ON THE MEANS OF FINDING THE FIRST JOB AND EDUCATIONAL ATTAINMENT AT ENTRY, BY RACE

	Variance in Occupational Prestige of First Job		Variance in the Starting Wage of First Job	
	Whites	Blacks	Whites	Blacks
Zero-order Effects: Education	30.6%	18.6%	17.1%	12.9%
Means	6.5	4.8	3.1	2.3
Unique Effects: Education	25.9	15.4	14.9	11.4
Means	1.7	1.6*	0.9*	0.8*
Overlap	4.7	3.1	2.2	1.5
Total Without Interaction	32.3	20.2	18.0	13.7
Unique Interaction Effect	4.2*	3.4*	3.4*	1.5*
Total With Interaction	36.6	23.6	21.4	15.2
	REGRESSION COEFFICIENTS IN PRESTIGE POINTS		REGRESSION COEFFICIENTS IN DOLLARS PER MONTH	
Education (base is no H.S.)				
Some High School	2.5	0.6	77	67
High School Grad.	5.1	3.8	102	88
Some College	9.4	6.8	107	136
College Grad.	24.5	20.9	201	146
Means (base is "friends")				
Family	- 1.3	- 2.1	15	6
Public Agency	1.7	3.7	5	31
Private Agency	7.0	0.8	64	67
Advertisements	2.0	1.6	5	12
Direct Application	2.1	0.0	25	20
Regression Constant	22.6	22.1	132	131
Number of Cases	620	552	556	474

None of the means coefficients yields significant t-values at .05.

*Means variance is not significantly different from zero at .05.

through friends were the lowest paying for both races, those found through members of the family were slightly better, and jobs found by active means, especially through private agencies, were the best. But the differences are very, very small and there seems little point in examining them much more closely.

Whether the prestige measure or the starting wage is taken as the index, the means a man used to find his first job had very little impact on how good a job he was able to find. This in spite of the unmistakeable tendency for men with higher levels of educational attainment to find first jobs in specific ways. There is some justification for saying that men with more resources are concentrated in the categories that yielded better jobs, but the effect is hardly of much importance. We now move to a parallel analysis of the industry in which the first job is found.

The Industry of the First Job

The discussion of the industry of the first job after entry here is based on the six industry classifications put forth in the previous chapter. The six categories were "agriculture, etc.," manufacturing, transportation, wholesale and retail trades, "finance and public administration," and business. Table 11 shows the distribution of whites' and blacks' first jobs among these six industries, with and without educational attainment at entry controlled. Men whose first jobs were in the armed forces are omitted from this analysis.

TABLE 11

INDUSTRY OF THE FIRST JOB AFTER ENTRY BY RACE AND EDUCATIONAL ATTAINMENT

		Agric., Etc.	Manuf.	Trans.	Wholesale and Retail Trades	Finance & Public Admin.	Business	Number of Cases
WHITES	No High School	57.1%	16.8%	1.6%	13.6%	0.8%	9.6%	125
	Some High School	28.1	32.6	8.9	21.5	7.4	8.1	135
	High School Grad.	30.6	27.1	9.4	23.2	3.2	6.5	310
	Some College	20.3	35.6	11.9	22.0	3.4	6.8	59
	College Grad.	11.8	23.7	6.6	7.9	7.9	42.1	76
	TOTAL	32.1	26.7	7.8	19.4	2.8	11.2	705
BLACKS	No High School	57.9	19.1	0.5	14.8	0.5	7.1	183
	Some High School	33.5	24.6	5.4	21.7	0.5	14.3	203
	High School Grad.	16.8	35.8	1.7	26.3	5.0	14.5	179
	Some College	9.1	39.4	3.0	18.2	6.1	24.2	33
	College Grad.	5.6	11.1	5.6	11.1	16.7	50.0	18
	TOTAL	33.8	26.6	2.8	20.4	2.6	13.8	616

In spite of the higher levels of educational attainment of the whites, there was only one small race difference in the distribution of whites and blacks among the six industrial classifications: 7.8% of the whites are in the transportation industry, compared to only 2.8% of the blacks. Approximately a third of the men found their first jobs in agriculture, mining and construction (the agriculture, etc. group), just over a quarter in manufacturing, around a fifth in wholesale and retail trades, an eighth in "business", and only around 2.5% in finance and public administration.

There was a very strong relationship between educational attainment and the industry in which an individual found his first job after entry. While there was some variation in the precise nature of the relationships across race, it is possible to characterize these distributions in terms that apply both to blacks and whites. The outstanding feature of the table is the drop in the numbers of men in the "agriculture, etc." category with increasing education. Among those with no high school, 57.1% of the whites and 57.9% of the blacks took first jobs in agriculture, compared to 30.6% of the white high school graduates and 16.8% of their black counterparts. Among college graduates, only a tenth of the whites and half that proportion of the blacks found first jobs in this industry. The high concentration of low skill jobs in this industrial group leads logically to the declining proportions of men entering these jobs as educational attainment increases.

The manufacturing industry provided about a fourth of the first jobs, with about a third of the men in the three intermediate levels of education finding jobs in this industry and lessor numbers of those at the highest and lowest levels of education. While the absolute proportions in the transportation and wholesale and retail trades industries were not the same as for the manufacturing industry these could both be characterized as primarily sources for first jobs for men with middle levels of education.

At the opposite end of the scale from agriculture, the finance and business industries drew most heavily on the highest levels of education, so that 6.5% of the white high school graduates and 14.5% of the black high school graduates found their first jobs in "business" compared to around half of the college graduates, for either race. To a somewhat lesser extent this pattern also appeared for the finance and public administration industry. Thus the proportions of men in agriculture declined with increasing education, those in finance and business increased, and those in manufacturing, transportation, and wholesale and retail trades first increased with education and then decline for the highest categories. The non-randomness of the education x industry relation was statistically significant (using a chi-square test).

Five dummy variables were constructed to describe the industry of the first job, relative to the "agriculture, etc." base category. In order to determine the impact of industry on the quality of the first job, the occupational prestige score and starting wage of that job were regressed on the five industry dummy variables and education. The results are presented in Table 12.

The industry of the first job had considerable impact on the prestige score of that job, over and above the effect of education. The two variables together explained 39.3% of the variance in the prestige scores of whites, 22.0% for blacks. These totals can be broken down to yield unique effects for education of 19.9% and 9.2%, unique effects for industry of 6.7% and 5.5%, and overlapping portions of the variance of 12.7% and 7.2%, for whites and blacks respectively. In each of these industries there was a wide range of jobs available...even in the agricultural industry there are accountants, clerks and executives as well as unskilled laborers. Irrespective of the level of education a man has, the industry in which he finds a job independently affects the kind of job he will find.

The regression coefficients showing the impact of industry were large, of the same order of magnitude as those for education. All the coefficients for both races were positive, indicating that the category with the worst jobs was the base category, agriculture. For blacks, the transportation and wholesale and retail trades industries were insignificantly better than the agricultural industry. For both races, finance and business are by far the "best" industries. Controlling on the effect of

TABLE 12

REGRESSION OF OCCUPATIONAL PRESTIGE SCORE AND STARTING WAGE OF THE FIRST JOB ON EDUCATIONAL ATTAINMENT OF THE FIRST JOB AND INDUSTRY OF THAT JOB, BY RACE

		Variance in Occupational Prestige		Variance in Starting Wage	
		Whites	Blacks	Whites	Blacks
Zero-order Effects:	Education	32.6%	16.4%	16.0%	11.4%
	Industry	19.4	12.7	3.8	5.5
Unique Effects:	Education	19.9	9.2	15.0	8.0
	Industry	6.7	5.5	2.8	2.1*
	Overlap	12.7	7.2	1.0	3.4
Total Without Interaction		39.3	22.0	18.8	13.5
Unique Interaction Effect		4.2*	5.7*	3.5*	4.2*
Total With Interaction		43.5	27.7	22.3	17.7
		REGRESSION COEFFS. IN OCCUPATIONAL PRESTIGE POINTS		REGRESSION COEFFS. IN DOLLARS PER MONTH	
Education (base is no H.S.)					
Some High School		1.6*	0.2*	$79	$55
High School Grad.		4.3	2.3	102	71
Some College		9.5	6.4	123	125
College Grad.		22.0	16.4	215	132
Industry (Base is agriculture, etc.)					
Manufacturing		5.3	2.5	24*	24*
Transportation		6.6	0.3*	16*	28*
Wholesale		3.6	1.3*	-31	- 3*
Finance		10.9	10.3	-36*	85
Business		11.2	6.0	-31*	20*
Regression Constant		19.7	20.2	149	134
Number of Cases		701	616	618	526

*Not significantly different from zero at the .05 level.

education, the jobs of whites in the finance industry were 10.9 prestige points above the base group and those in the business industry were 11.2 points above the base. Blacks in the finance industry had jobs averaging 10.3 prestige points above the base group, compared to a difference of 6.0 points for blacks in business. For whites, jobs in the manufacturing, transportation, and wholesale and retail trades industries fell between the very poorest ones in agriculture and the very good jobs in finance and business.

The effect of industry on the starting wages of these jobs was far less interesting. The five industry variables accounted uniquely for 2.8% of the variance for whites and 2.1% for blacks, out of total explained variances of 18.8% and 13.5% for whites and blacks respectively. Here there was far less overlap in the effects of education and industry than was the case for the prestige variable above. Most of the wage regression coefficients were not significant. For whites, jobs in finance wholesale and retail trades, and business paid an average of $30 per month less than the agriculture reference industry, while jobs in manufacturing and transportation paid about $20 per month more than agriculture! For blacks, agriculture and the wholesale and retail trades paid the worst, with men in manufacturing, transportation, and business earning an average of around $25 per month more, and those in finance earning $85 more per month.

It is clear that the wages of whites and blacks in different industries are not very strongly associated with one another. With the exception of the transportation industry where blacks were significantly underrepresented, the effect of industry on the prestige score of the first job was relatively uniform across race. The most significant finding here is undoubtedly the strong impact exerted by the industry of this first job on the prestige score of that job. The rather erratic effect of industry on wage appears to be relatively constant over the period of the first job. A regression similar to the one above performed with the ending wage of the first job yielded similar results to those found for the starting wage.

Moving

Approximately ten percent of the men in the sample moved ten miles or more in the period between entry and the start of their first jobs, excluding the involuntary moves associated with entering the armed forces. Though a slightly larger number of blacks than whites made such a move, the difference was insignificant. Table 13 shows the distribution of these moves by race and level of educational attainment at entry. For both races college graduates were the most likely to make such a move, approximately one quarter of them did so. At lower levels of educational attainment the pattern was rather erratic though it appeared that men with some high school were the least likely to have moved and that all the other levels of education

TABLE 13

PROPORTION OF RESPONDENTS MAKING A GEOGRAPHIC MOVE OF OVER NINE MILES (EXCLUDING MOVES ASSOCIATED WITH MILITARY SERVICE) BETWEEN ENTRY POINT AND START OF FIRST JOB BY EDUCATIONAL ATTAINMENT AT ENTRY AND RACE

	% MOVING	
	Whites	Blacks
No High School	13.7% (131)	9.8% (184)
Some High School	3.9 (178)	8.1 (258)
High School Graduate	6.3 (363)	13.4 (220)
Some College	8.5 (82)	12.8 (47)
College Graduate	25.6 (90)	24.0 (25)
Total	9.2% (850)	10.3% (736)

had rates of moving between this lowest category and college graduates. College graduates were approximately twice as likely to make a move as men in the rest of the population.

Not enough men moved to yield very reliable measures of either the incidence of or impact of moving. A distribution like that of the move variable will tend to generate very small estimates of the variance attributable to making a move, simply because too small a proportion of the total population moved for this variable to have much impact. In cases like this it is best to concentrate on the regression coefficient for an estimate of the importance of a variable.

To test the conjecture that making a move might increase the time needed to find a first job, the length of the period between entry and the start of the first job was regressed on a dummy variable indicating whether a move was made in this period and education. Controlling on the individuals' level of education, men that made a move between entry and the start of the first job spent significantly longer periods looking for jobs--an average of 3.3 extra months for whites, 6.8 more months for blacks. This suggests that difficulty in finding jobs was associated with making a geographic move. Unfortunately this regression does not allow us to decide on the causal relationship between these variables.

To determine whether making a move of this sort had any impact on the quality of the first job after entry, the prestige score and starting wage of that job were regressed on the move variable and educational attainment. The results of this regression are presented in Table 14. Moves at this point were of some benefit to whites, but not to blacks. Making a move raised the whites' prestige score by an average of 3.6 prestige points and the income level by $43 per month. In each case the move variable accounted for about one percent of the variance after educational attainment had been controlled.

The moves made by whites in the period between entry and the start of the first job averaged 411 miles in distance, compared to 391 miles for blacks. The standard deviation of the distance for whites was 523 miles while that for blacks was only 296 miles. Thus there were a few outlying moves of very long distance for whites. As a means of testing the significance of these distances, the occupational prestige scores and wages of the first job were regressed on this distance measure and on educational attainment at entry (in the continuous zero to ten scale form). Only those individuals that made a move at this point were included in the regression--78 whites and 76 blacks.

The distance of the move had virtually no impact on the prestige level of the first job. However, it had strong impact on the starting wage of that job, causing it to increase by one dollar per month for each 9.7 miles moved by whites or 10.5 miles for blacks. The educational attainment and distance variables together accounted for 22.0% of the variance in the starting wage of whites, 20.3% for blacks; of these total the

TABLE 14

REGRESSION OF THE OCCUPATIONAL PRESTIGE SCORE OF THE FIRST JOB AFTER ENTRY AND THE STARTING WAGE OF THAT JOB ON EDUCATIONAL ATTAINMENT AT ENTRY AND THE DICHOTOMOUS MOVE VARIABLE, BY RACE

		Variance in Occupational Prestige of First Job		Variance in Starting Wage of First Job	
		Whites	Blacks	Whites	Blacks
Zero-order Effects:	Education	27.6%	14.8%	16.0%	11.2%
	Move	2.7	0.03*	1.9	0.3*
Unique Effects:	Education	25.6	14.8	15.0	16.0
	Move	0.7	0.02*	0.9	0.04*
	Overlap	2.0	0.01*	1.0	0.2*
Total Without Interaction		28.3	14.8	16.9	11.2
Unique Interaction Effect		3.7	0.2*	0.8*	0.2*
Total With Interaction		32.0	15.0	17.7	11.4
		REGRESSION COEFFS. IN PRESTIGE POINTS		REGRESSION COEFFS. IN DOLLARS PER MO.	
Education (base is no H.S.)					
	Some High School	4.2	2.5	$ 87	$ 58
	High School Graduate	5.8	4.7	107	80
	Some College	10.1	8.5	127	132
	College Graduate	22.8	17.2	200	150
Move		3.6	-0.4*	43	7*
Regression Constant		22.2	21.4	139	141
Number of Cases		844	734	618	524

*Not significantly different from zero at the .05 level.

unique variances explained by the distance of the move were 12.4% for whites, 8.8% for blacks. For the small group of men that moved, the gain in wage from the move varied directly as the distance and was quite large. We should reiterate that this applies only to the men that moved at this point.

The results of this analysis of the effect of moving in the period between entry and the start of the first job fit in very well with our conclusions as to the impact of region of the country in which entry took place on wages and prestige scores. Region had essentially no effect on the prestige scores of first jobs but did affect the starting wages of these jobs. Here we found that the distance moved was related to the starting wage. Moving, like region, affects wages but not prestige scores. The prestige score of the first job is mainly a function of the level of educational attainment and skills of the individual, attributes that change only with additional schooling or perhaps job experience. However, a man can appreciably improve his wage level without improving his skills or gaining more education.

Marital Status

Few men were married at the time they entered the labour force. Table 15 contains a tabulation of the proportions of individuals married at the point of entry, at the start of the first job and at the end of the first job. A rather curious pattern emerges, a larger proportion of blacks married at entry among men at all levels of educational attainment at entry, except

TABLE 15

MARITAL STATUS AT ENTRY POINT, AT START OF FIRST JOB, AT END OF FIRST JOB BY RACE AND EDUCATIONAL ATTAINMENT AT ENTRY

	Proportion Married at Entry		Proportion Married at Start of First Job		Proportion Married at End of First Job	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
No H.S.	0.0%	0.5%	0.8%	0.5%	10.6% (132)	17.4% (184)
Some H.S.	2.3	3.8	2.8	5.4	12.3 (179)	21.5 (260)
H.S. Grad.	1.7	1.8	2.2	1.8	14.2 (365)	19.0 (221)
Some College	6.0	10.5	6.0	14.6	22.9 (83)	35.4 (48)
College Grad.	26.4	8.0	27.5	12.0	52.7 (91)	36.0 (25)

for college graduates, where 26.4% of the whites and only 8.0% of the blacks were married at the point they entered the labour market. Unfortunately the small size of the population of black college graduates--only 25 men, makes it impossible to determine whether this difference actually exists in the population.

The proportions married at entry increase fairly steadily with increasing levels of educational attainment. None of the men with no high school, about three percent of those with some high school, two percent of the high school graduates, and somewhere under a tenth of the men with some college are married at this point. For both races the proportion of men who entered the labour force after marriage was smaller among high school graduates than among men with some high school. For blacks only, the proportion of blacks entering with some college who were married was larger than the proportion of married college graduates. In both cases this reversal occurred in spite of the fact that the graduates were older than the men with only some high school or college preparation. This suggests that marital status may have some effect on educational attainment at entry and that the former is not simply a function of education. It appears that men who marry are less likely to finish the unit of education (either high school or college) they are pursuing if they marry. This seems to be especially important to blacks, where the pattern appears for both the high school and college levels--whites that graduated from college were more likely to be married than those that did not finish college.

There was a broad trend for educational attainment to be associated with marital status at entry. To what extent was this just a function of age? The simple correlations between age at entry and marital status were 0.332 for whites, and 0.455 for blacks, while those between educational attainment at entry and marital status at this point were 0.314 for whites and 0.463 for blacks. Marital status was measured by a dummy variable taking on the value one if the respondent was married at the time he entered and zero otherwise. Educational attainment was used in the continuous form and not as a set of dummy variables so that a regression coefficient comparable to the age at entry could be obtained. While there were strong correlations between age and education at entry (0.893 for whites and 0.698 for blacks), it is not possible to show that the correlations between either of these variables and marital status on entry is spurious. Age at entry exerted the stronger effect on marital status for whites while educational attainment had the stronger impact for blacks. The high level of correlation between the two independent variables means that these results are quite unreliable.

Small numbers of men married in the time interval between entry and the start of the first job. Over the course of this first job there was a significant increase in the numbers of men married at all levels of educational attainment and for both races. At this point too the proportion of blacks that were married was greater than that for whites at all levels of educational attainment, with the exception of the college graduates. Approximately equal percentages of men in the three lower education categories were married at the end of their first jobs, about twelve percent of the whites and a fifth of the blacks. A quarter of the whites with some college were married at the end of this job and half of the college graduates; approximately a third of the blacks with some college graduation were married then.

What was the impact of marital status on the characteristics of these first jobs? The occupational prestige of the first job after entry was not significantly related to the respondents' marital status, for both whites and blacks. While the results were again statistically insignificant, it appears that married men obtained first jobs at slightly higher rates of pay than those that were not married, controlling on levels of education. The variance explained was negligible, perhaps a quarter of one percent for whites and about twice that for blacks.

A man's marital status did strongly effect the duration of his first job. Married men tended to have longer jobs, this presumably a function of the greater risk in switching jobs for a man who may have to support other members of his family. A precise measure of the impact of marital status on first job durations was obtained by regressing the duration of the job, in months, on a single dummy variable measuring marital status at the end of the first job and educational attainment. The regression is presented in Table 16.

Whites that were married at the end of their first jobs held these jobs for an average of 29.7 months longer than those that were not married. The difference was even larger for blacks, 36.4 months. Married men held their first jobs an average of more than twice as long as their single counterparts! Marital status uniquely explained 12.3% of the variance in first job durations for whites, compared to a unique contribution of only 3.6% for education; for blacks education makes a unique contribution of 5.0% of the variance compared to 14.8% for the marital status dichotomy. In both cases the total explained variance was less than the sum of the two unique contributions, a result of the large negative correlations between the dummy educational attainment variables for the lower levels of education and marital status.

With education inserted as a controlling variable, marital status appears to have a significant impact on the ending wage of the first job, even though it had very little effect on the starting wage of that job. Men that were married at the end of their first jobs had wages at the end of these jobs $92 per month higher than unmarried men if they were whites, $66 higher if they were black. The respondents' marital status thus affects the change in wage during the first job--as it increases the ending wage but not the starting wage of the job. This effect

TABLE 16

REGRESSION OF THE DURATION OF THE FIRST JOB AFTER ENTRY ON EDUCATIONAL ATTAINMENT AT ENTRY AND MARITAL STATUS AT THE END OF THAT JOB, BY RACE

	Variance in the Duration of the First Job	
	Whites	Blacks
Zero-order Effects: Education	2.1%	4.0%
Marital Status	10.8	13.8
Unique Effects: Education	3.6	5.0
Marital Status	12.3	14.8
Overlap	- 1.5	- 1.0
Total Without Interaction	14.4	18.8
Unique Interaction Variance	3.9	4.2
Total With Interaction	18.3	23.0
	REGRESSION COEFFS. IN MONTHS	
Education: Some High School	-10.1	-12.5
High School Graduation	-14.3	-20.0
Some College	-14.4	-26.4
College Graduation	-21.9	-24.9
Effect of Being Married	29.7	36.4
Regression Constant	31.5	40.0
Mean Duration (in months)	24.9	34.8
Variance of Duration (in months)	30.1	38.3

All the regression results are significantly different from zero at the .05 level.

is to some extent the spurious result of there being a strong relationship between the change in wage during this job and the duration of the job. The larger part of this difference is the result of a real relationship between the marital status variable and the ending wage of the first job. We return to this problem in Chapter 7 where an analysis of the duration of this first job is presented.

Rewards During the First Job

In the course of their first jobs men could obtain three sorts of rewards: on-the-job training, raises in pay, and promotions. As was the case with other characteristics of the first jobs after entry, the distribution of these rewards was a function of both the race and educational attainment level of the individual. In Table 17 the proportions of men receiving on-the-job training and promotions are tabulated for the ten race x education categories. The distribution and magnitudes of pay raises are shown in Table 18.

Few respondents reported that they obtained some training during their first jobs, 8.9% of the whites and only 3.7% of the blacks. In the context of this overall difference, the distribution of this training with regard to educational attainment was approximately the same for blacks and whites. In both cases, the proportion of men receiving some such training increased with educational attainment until the "some college" level and fell somewhat for college graduates. About

TABLE 17

PROPORTION OF RESPONDENTS RECEIVING ANY ON-THE-JOB TRAINING DURING THEIR FIRST JOBS AFTER ENTRY BY EDUCATIONAL ATTAINMENT AT THE START OF THE FIRST JOB AND RACE AND THE PROPORTION OBTAINING A PROMOTION AT THE END OF THIS JOB BY EDUCATION AT THE END OF THE FIRST JOB AND RACE

	Some On-the-Job Training		Get Promoted	
	Whites	Blacks	Whites	Blacks
No High School	5.2% (132)	2.7% (184)	5.4% (129)	2.8% (177)
Some High School	7.2* (179)	1.1* (260)	5.2 (152)	2.9 (240)
High School Graduation	9.8 (365)	6.3 (221)	7.0* (370)	3.4* (230)
Some College	12.0 (83)	8.3 (48)	5.9 (84)	6.2 (48)
College Graduation	10.9 (91)	4.0 (25)	7.4 (94)	4.1 (24)
Total	8.9 (850)	3.7 (738)	6.2* (850)	3.3* (738)

*Blacks and whites significantly different at .05 (1 tail test).

TABLE 18

PERCENT OF RESPONDENTS WHOSE WAGE RISE DURING THE COURSE OF THEIR FIRST JOBS AND THE AVERAGE SIZE OF THE DIFFERENCE (ONLY FOR THOSE WITH SUCH A RAISE) BY EDUCATIONAL ATTAINMENT AT ENTRY AND RACE

NONE OF THE RACE DIFFERENCES WERE SIGNIFICANT AT .05

	Proportion Gaining Some Wage Raise			Average Size of Increase (in Dollars) Per Month		
	Whites	Blacks	Both	Whites	Blacks	Both
No High School	48 % (96)	48 % (140)	48 % (236)	$56 (46)	$64 (65)	$61 (111)
Some H.S.	52 (122)	48 (175)	50 (297)	62 (63)	71 (97)	67 (160)
H.S. Grad.	42 (276)	49 (169)	45 (445)	67 (117)	68 (82)	67 (199)
Some College	56 (55)	66 (29)	60 (84)	94 (31)	113 (19)	101 (50)
College Grad.	32 (69)	33 (18)	33 (87)	171 (22)	173 (6)	171 (28)
Total	45.1% (618)	48.9% (526)	46.9% (1144)	$75.12 (279)	$74.04 (257)	$74.60 (536)

one-eighth of the whites with some college and a twelfth of the blacks in this category received some such training. The very small proportions of the population as a whole that received any training make these conclusions rather unreliable, though the aggregate difference between whites and blacks is statistically significant.

There was also a difference in the quality of training that blacks and whites received. The men were asked to classify their training experience into one of four categories: apprenticeship, formal management training, other formal training, and informal and unspecified types. A comparison of the number in each category showed that blacks' training was of lower quality than that received by whites. In 38.2% of the cases whites' on-the-job training was part of an apprenticeship, compared to 14.8% for blacks. Half the whites' training experiences fell in the "informal and unspecified" category but three-quarters of the blacks' experiences fell into this group. It is clear that blacks were much less likely to receive this training than whites and that when they did get training it was of lower quality than that received by whites.

A similar pattern appeared if the proportions of individuals receiving promotions at the end of these first jobs are tabulated. A total of 6.2% of the whites and 3.3% of the blacks received such promotions. This difference is statistically significant at the .01 level. For whites there are no important differences in the proportions of men receiving promotions in each of the five educational categories while for blacks, men in the two highest education categories appeared to get promotions more frequently. The small numbers of men receiving any promotion make this analysis rather speculative. The average gain in prestige from these promotions was 4.8 prestige points for whites, 5.7 points for blacks, there being no significant race difference.

The last measure of the benefits obtained during the course of a job considered here are the increases in wages that men sometimes received during their first jobs. In virtually no cases did wages fall in the course of these first jobs and just under half received pay raises. In order to determine the relationship between this variable and educational attainment, the proportion of respondents receiving pay raises and the average size of these raises were tabulated by race and education at entry.

An insignificantly larger proportion of blacks, 48.9% of the total versus 45.1% for whites, received pay raises in the course of the first job. Approximately half of the men with high school graduation or less education obtained raises, around two thirds of those with some college, and only a third of the college graduates also made gains in pay. The race differences were unimportant. The average size of the increase was around $65 per month for blacks and whites with no high school, some high school, and high school graduation, around

$100 per month for men with some college, and $170 a month for college graduates. There were no significant race differences. These increases were calculated only on the basis of the men that obtained some raise in pay, others were excluded from the averages. In practice almost all of the others had no increase or decrease in pay during the first job.

The distribution of monetary benefits appears to be relatively constant across race, looking only at the proportions receiving some raise and the average size of that increase. In fact, these approximately equal increases in wages occurring over a much longer period in time for blacks than for whites as the average durations of whites first jobs were only about seventy percent of the blacks'. There is a far better way to deal with the relative differences between the wages of whites and blacks and that is to tabulate the change in their magnitudes over some fixed period of time--this caluclation is carried out in the next chapter.

The change in wage during the first job was a rather curious variable. Of the four variables dealt with here, industry, moving, means of finding the first job, and marital status, only the last has any impact at all on the variable, accounting for about nine percent of the variance in change in wage. The correlation between this increase in pay and the level of the starting wage was only .046 for whites and .146 for blacks. Thus men that start with higher wages tend to obtain larger wage increases. There is also a slightly positive relationship between this variable and the prestige level of the first job, the correlations were 0.210 for whites and 0.151 for blacks. Educational attainment explained 1.2% of the variance in the changing in wage for whites and, 2.9% for blacks. None of these factors appear to take up much of the variance in the change in wage variable.

Summary

The object of this chapter has been to implement an abstract definition of entry into the labor force and to trace the consequences of that definition in the context of the different level of educational attainment of whites and blacks as they enter. Blacks as a whole entered the labour market with considerably less educational preparation than whites. While the distribution of educational attainment was generally lower for blacks, the most important difference appeared to result from the far smaller proportions of blacks that were able to complete either high school or college once they had entered these institutions.

Whites and men with higher levels of educational attainment had significant advantages in almost all facets of early labour force experience. The impact of education on the first job was far stronger than that of race. The differences between whites and blacks, even counting in the large educational disparity, were not nearly so large as those between men of differeing educational attainment levels. In general there appeared to be little interaction between the race and education variables.

The durations of these first jobs were relatively long, averaging around two years for whites and about ten months longer for blacks. The implication of this finding is that these jobs do in fact represent a considerable commitment, at least in time, for the men. Indications in the literature to the contrary, these jobs are relatively important ones. The durations of these first jobs were only very poorly predicted by educational attainment.

The region of the country where entry took place and whether or not the respondent made a geographic move between entry and the start of the first job both had some impact on the starting wage of that job, but very little effect on the prestige level of the job. This implies that individuals are fairly bound in the kinds of jobs they can find by their educational preparation but that considerable wage returns could be realized by moving.

While the means of finding the first job was clearly a function of race and educational attainment (men with more education used more universalistic ways of finding jobs), the impact of this variable on the actual quality of the job found was minimal. Similarly, educational attainment, and also age at entry, affected the probability that a man was married, but this had little effect on the first job. However, married men stayed on their first jobs for significantly longer periods than single men and appeared to receive larger increments in pay in the course of their first job tenure.

The industry of the first job, even using a relatively crude categorization, had a strong impact on the quality of the first job, especially on its prestige level. Men with higher levels of education tended to be concentrated in industries with higher overall prestige levels, even with educational attainment held constant. The effect of industry on wage was far more erratic and industries that featured higher prestige levels did not necessarily also have higher average wages.

Whites were twice as likely as blacks to receive on-the-job training in the course of their first jobs or promotions at the end of them. The wage increases, though strongly a function of a man's level of educational attainment, showed no differences across race. While blacks received raises as frequently as whites and for the level of education they were of the same magnitude, these raises took place over a longer period of time for blacks than whites.

Throughout this set of analyses linear regression was used. It appears that this was statistically justified as in only one case was there a significant level of interaction variance. This augurs well for the regressions in the following chapters that will involve the simultaneous insertion of several of these variables into regression equations where it will be necessary to make even stronger non-interaction assumptions.

These findings fit together to form a quite consistent picture of the first job after entry and the manner in which men of different race and with differing levels of educational attainment are sorted into jobs. We now move to a consideration of the period just after the start of these jobs.

CHAPTER IV

THE NEXT TWO YEARS

The point in time at which men enter the labor force marks only the beginning of a process of entry. The first months and years of this entry process are characterized by high levels of job mobility, older men and those who have spent some time in the labour force change jobs less frequently. The purpose of this chapter is to examine the activities of individuals in the two years immediately after their entry into the work force.

Our concern is with two of the characteristics of jobs, their occupational prestige scores and wages. According to the definition of a job, only the latter of these two parameters can change without the individual changing jobs. Gains in occupational prestige can only result from job transitions. Thus the importance will be on changes in jobs during this period and on the consequences of these changes for the patterns of job holding.

The methods used in this chapter are similar to those of the previous one. Cross-tabulations and bivariate regressions with educational attainment inserted as a controlling factor will form the bulk of the presentation. We present a careful examination of the effects of the dependent variables we have dealt with before, only the context now shifts to the first years after entry. The two chapters following this one will present a re-analysis, or rather a complementary analysis, of these same results using multivariate methods. Again, as in the last chapter, the aim is to present careful and specific analyses of the data, leaving a broader but less meticulous approach to later chapters.

Two ways of looking at changes in jobs suggest themselves. One sees job changing, especially if the job has only been held for a short period of time, as a proof of undependability in a person, a characteristic of men who cannot "stick with" or "hold down" a job. This pattern is then associated with black people and poorly educated whites, who because of a lack of skills or an inherent "shiftlessness," rapidly move from one job to another. The second kind of theory views job changes in a different light--as a source of mobility. Specific changes are then taken as examples of economically motivated behaviour. In most cases (when the individual was not laid off or fired) he is seen as having made a job change in order to get a better job, the calculus of this change taking into account the possibility of experiencing a period of unemployment during which he might have to support a family and other factors.

The evidence found so far points in the direction of the latter theory. The less well educated and black respondents are less rather than more likely to switch jobs when the durations of their first jobs after entry are taken as the criteria (See Chapter 3, Table 6). The rationality of this process is borne out by two previous findings: individuals with more education were more mobile and those that were married were less likely to change jobs.

Two Methodological Points

Two approaches to short term job changing around the entry period are possible. The simplest involves taking the second and subsequent jobs held after entry, examining these to see which occurred shortly after the entry point, and then analyzing the characteristics of these jobs. This method is empirically and aesthetically rather clumsy, necessitating a constant accounting of the time between entry and these later jobs. The method used here is more elegant. The jobs held at fixed distances in time from entry are the subject of the analysis. Whether or not the job in question was a first, second, third, or later job then becomes a parameter in the analysis. This approach controls on the labour force experience of the respondent--the ages of the men at these time points will vary widely and will be strongly correlated with their educational attainment levels at entry.

The two time points used were those one and two years after entry. For those who entered at very young ages with little formal education, the unemployment rates in the first two years after entry were very high. One year after entry, thirteen percent of the whites and about fifteen percent of the blacks were without work; two years after entry nine percent of the whites and ten percent of the blacks were unemployed. These rates of unemployment varied strongly with educational attainment. A year after entry, thirty percent of the men with no high school were without jobs, compared to nine percent of the high school graduates, compared to six percent of the college graduates. There was little variation in these rates across race. There is no conventional way to deal with a problem such as this one, where substantial numbers of individuals have no jobs at the time point of interest, so that no variables describing the jobs held one or two years after entry are defined.

A statistical purist might simply throw out the cases where the respondent was out of a job, significantly reducing the case base and disturbing the randomness of the sample. This might be further compensated by randomly reducing the numbers among the overrepresented educational attainment groups. This procedure was not followed. Instead, in each case where an individual was unemployed at one or both of the points one and two years after entry, the job held nearest the time point in question was substituted for the missing entry. In most cases the individual had some job within six months of this time point, usually the nearest job in time was after the exact time desired. This was especially the case for those who entered at young ages. The advantage of this method is that no cases were lost and the substitution procedure replaced the missing cases with what appeared to be the best alternative.

In the period between entry and the point two years later, men in the sample experienced virtually no changes in educational attainment. This was partly due to the definition entry which required they have no full time education for sixteen months.

While there was considerable change in this variable in the ten years after entry, the first two years saw almost none of this increase. Less than one percent of the respondents moved from the major educational attainment category in which they were included at entry during this two year period.

The first job duration of whites averaged 24.9 months and those for blacks 35.0 months. In addition, men averaged between one and two months in the labour force before finding these first jobs. Thus it is hardly surprising to find that 63.8% of the whites and 79.2% of the blacks were holding their first jobs twelve months after entry. Two years after entry 42.5% of the whites and 61.4% of the blacks were still at their first jobs. The average wages and prestige scores did not undergo much change during this period.

The Military, Prestige Scores, and Wages

Perhaps the most important change in the labor force activities of the men during this two year period lay in the steadily increasing numbers in the armed forces. During the first two years there was virtually no outflow from the positions in the military, this the result of the minimum twenty-four month durations of these jobs. Table 1 presents a more precise picture of this labour flow.

Virtually none of the blacks at the lowest educational attainment level (no high school) entered the armed forces in their first two years after entry, while 11.4% of the whites with no high school entered the armed forces within two years after entry. Averaging only about fifteen years of age when they entered, the men in this

TABLE 1

PROPORTIONS OF THE RESPONDENTS WHOSE FIRST JOBS WERE IN THE ARMED FORCES AND OF THOSE IN THE ARMED FORCES ONE AND TWO YEARS AFTER ENTRY, BY RACE AND EDUCATIONAL ATTAINMENT AT THE TIME POINT IN QUESTION

	Proportion with first job in the armed forces (Percent)		Proportion in the armed forces 1 yr. after entry (Percent)		Proportion in the armed forces 2 yrs. after entry (Percent)	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
No High School	4.5% (132)	0.5% (184)	8.3% (132)	0.5% (184)	11.4% (131)	1.0% (184)
Some High School	24.1 (179)	21.2 (260)	31.0 (177)	24.7 (259)	37.9 (174)	29.4 (258)
High School Graduation	15.1 (365)	19.0 (221)	30.3 (366)	35.2 (221)	40.9 (369)	45.0 (222)
Some College	28.9 (83)	31.3 (48)	45.2 (84)	38.7 (49)	42.8 (84)	36.7 (49)
College Graduation	16.4 (91)	28.0 (25)	28.5 (91)	44.0 (25)	27.1 (92)	36.0 (25)
Total	16.8% (851)	16.1% (738)	28.3% (851)	23.4% (738)	34.4% (851)	27.8% (738)

lowest education group were very different from the other respondents as they were largely excluded from the military on the basis of their youth and on their inability to pass military admission tests.

Among the eight remaining groups defined on the race x education basis, the proportions whose first jobs were in the armed forces ranged from 15.1% to 31.3%; a year later the range had risen to between 24.7% and 45.2%. The heaviest concentration of men in armed forces at this time was among high school graduates and those with some college. The race differences were small, with the one exception that blacks with only some high school were less likely than their white counterparts to be in the armed forces one and two years after entry. There was a slight upward trend in the number of men in the armed forces in the second year after entry.

While respondents with some college were the ones most likely to take first jobs in the armed forces, by the time point two years after entry men with some college and high school graduates were about equally likely to be in the military. About 40% of the men in each group were in the armed forces at this point. Two years after entry about three in ten college graduates and the same proportion of men with some high school were serving in the military.

Within each of the ten race x education categories, the average prestige scores increased only slightly in the first two years after entry. These trends are shown in Table 2. For all whites, the

TABLE 2

MEAN OCCUPATIONAL PRESTIGE SCORES OF THE FIRST JOB AFTER ENTRY AND THOSE HELD ONE AND TWO YEARS AFTER ENTRY, BY RACE AND EDUCATIONAL ATTAINMENT AT THE TIME POINT IN QUESTION

	Average Prestige Score of the 1st Job After Entry		Average Prestige Score One Year After Entry		Average Prestige Score Two Years After Entry	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
No High School	22.7 (131)	21.4 (184)	22.6 (131)	21.4 (184)	23.1 (130)	21.6 (184)
Some High School	26.5 (178)	23.9 (258)	27.3 (176)	24.2 (256)	29.1 (174)	24.5 (255)
High School Graduation	28.3 (363)	26.0 (221)	29.8 (364)	27.7 (219)	31.0 (368)	28.5 (220)
Some College	32.7 (82)	29.9 (48)	33.1 (84)	31.2 (49)	34.5 (84)	31.4 (49)
College Graduation	46.0 (90)	38.5 (25)	48.6 (91)	39.2 (25)	48.6 (92)	42.1 (25)
Total	29.3 (844)	24.8 (736)	30.5 (846)	25.5 (733)	31.7 (848)	26.0 (733)

average prestige score was 29.3 for the first job after entry, 30.5 one year after entry, and 31.7 two years after entry. The blacks' prestige average showed less of a rise during this period. At entry the average score for blacks was 24.8 prestige points, rising to 25.5 a year later and to 26.0 two years after entry. The average rise in prestige in the short period after entry varied directly with educational attainment. For both races, the prestige averages of the groups with high school graduation or a higher level of education rose of the order of 2.5 points in the two years after entry, with high school graduates and college graduates receiving slightly larger average increases than the men with some college. Among individuals with no high school the increments during this time were only 0.4 points for whites and 0.2 points for blacks. The mean prestige value of whites with some high school increased by 3.6 points in this period, compared to an increment of only 0.6 points for their black counterparts. It appears that whites at the lower end of the education spectrum were significantly less disadvantaged than blacks with little education.

The average wages of both blacks and whites rose somewhat in the first two years after entry, with the gap between the two races widening somewhat (see Table 3). The average white respondent found a first job with a starting wage of $243 per month, rising to $261 in a year and to $293 in two years. Blacks entered at an average wage of $200 per month going up to $214 in a

TABLE 3

MEAN WAGES AT THE START OF THE FIRST JOB AFTER ENTRY AND ONE AND TWO YEARS AFTER ENTRY, BY RACE AND EDUCATIONAL ATTAINMENT AT THE TIME POINT IN QUESTION

	Average Starting Wage of the First Job After Entry (Dollars/Month)		Average Wage One Year After Entry (Dollars/Month)		Average Wage Two Years After Entry (Dollars/Month)	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
No High School	149 (93)	142 (134)	155 (89)	148 (137)	191 (89)	155 (135)
Some High School	230 (121)	200 (175)	239 (112)	213 (168)	263 (98)	224 (160)
High School Graduation	249 (276)	222 (169)	270 (229)	244 (146)	296 (192)	261 (115)
Some College	272 (55)	281 (29)	304 (44)	339 (27)	346 (46)	364 (28)
College Graduation	354 (69)	294 (18)	390 (62)	321 (14)	431 (64)	362 (15)
Total	243 (618)	200 (526)	261 (536)	214 (482)	293 (489)	226 (453)

year and to $226 in two years. For the educational attainment groups from some high school upward, the differences in the average wage increases of whites and blacks over the first two years after entry were quite unsystematic and not large. However in the "no high school" category whites experienced an average wage increase of $42 per month in the first two years of labour market experience, compared to an increment of only $13 for blacks.

This examination of the averages of different cells is limited in its ability to isolate the sorts of transformations actually taking place in individuals' wages and prestige scores. For example, an increase of two prestige points in the average for a group could be accounted for a shift upward of two points by each individual, by an exodus from the worst jobs by a few men, or by a number of men entering the armed forces (where almost all the men had prestige scores of 30.0). In order to get some idea of the way in which prestige scores were changing, a set of summary distributions were constructed to show the proportions of respondents in each of four categories: below twenty points, between twenty and thirty, over thirty points, and military service. The tabulations comprise Table 4.

Taking as the initial values the prestige scores of the first job after entry and the scores two years later as the end point, we find relatively little change in the proportions of respondents in the highest of the four prestige categories. The small overall increase in the prestige averages was mainly the result of

TABLE 4

THE DISTRIBUTION OF OCCUPATIONAL PRESTIGE SCORES AT ENTRY AND TWO YEARS LATER BY RACE AND EDUCATIONAL ATTAINMENT

Education	Race	Time of Measurement	Under 20	20 to 29.9	30.0 and Above	In the Armed Forces	Number of Cases
No High School	Whites	1st Job	61.8%	20.6%	12.9%	4.6%	131
		2 yrs Later	56.9	19.3	13.3	11.4	130
	Blacks	1st Job	66.1	23.4	9.8	0.5	184
		2 yrs Later	63.6	25.0	10.4	1.0	184
Some High School	Whites	1st Job	31.6	16.8	28.7	23.6	178
		2 yrs Later	17.4	18.9	24.7	37.9	174
	Blacks	1st Job	45.1	19.0	13.7	21.3	258
		2 yrs Later	40.4	17.7	12.6	29.4	255
High School Graduate	Whites	1st Job	30.4	22.3	31.9	15.2	363
		2 yrs Later	11.7	16.1	31.2	40.9	367
	Blacks	1st Job	29.9	32.5	18.5	19.0	221
		2 yrs Later	13.7	23.2	18.2	45.0	220

individuals in the lowest category, below twenty points, working their way up into the next category or joining the armed forces. Examination of a turnover table showed this to be the case.

The largest differences between blacks and whites and between men of different levels of education lay in their relative abilities to get out of the lowest prestige category. Among whites with no high school, 61.8% obtained first jobs with prestige scores below twnety and two years later 56.9% were still mired in such jobs; among blacks with no high school, 66.1% enter first jobs with prestige scores in the lowest category and 63.6% of the total were in this category two years later. It is clear that little mobility out of these poor jobs occurs in these two years for men with the lowest level of education.

For whites with some high school, 31.6% found first jobs in the lowest category but only about half the proportion, 17.4% were in this category two years after entry. Almost half (45.1%) of the blacks with some high school had first jobs with prestige scores under twenty and 40.4% remained in this category two years after entry. Thus whites with some high school were clearly better able to extricate themselves from these very poor jobs than blacks. For men with high school diplomas or more education it was apparently not difficult to find better jobs. Only an eighth of the high school graduates had jobs with prestige scores in the lowest category after two years in the labor force, this in comparison to the three in ten whose first jobs were in the under twenty prestige range. Fifteen to twenty percent of the high school graduates found first jobs in the armed forces and within two years the proportion had more than doubled. While the men with some college and college graduates appeared to act in a fashion similar to high school graduates, the small numbers of cases made this sort of analysis too imprecise to be of interest.

The Numbers that Changed Jobs

Changing jobs provides an important source of upward mobility. One way we have used to look at these job changes was to examine the first job durations. In another method employed, we analyzed the number of jobs our respondents have held in their first two years labour force experience. About a third of the whites and a fifth of the blacks changed jobs one or more times in their first year in the labour force, by the time point two years after entry the proportions on a second or later job had increased to about two-thirds of the population for whites and half for blacks.

Like virtually all the variables we have dealt with, job changing is related both to race and educational attainment. In general, whites are more likely to quickly leave the jobs they first found after entering the labour force. The effects of being white and of increasing education were in the same direction. It was the better educated who were more likely to change jobs during this period. These educational attainment and race differentials occurred no matter how the job changing frequency is tabulated for we find that at both time points, one and two years after entry, and whether the proportions of respondents with two or more jobs or with three or more jobs in this period are tabulated, the results are much the same.

Table 5 contains a tabulation of the numbers of men on their first, second, third, and fourth or later jobs one year after entry. At each of the five levels of education and for both races a majority of the respondents were on their first jobs one year after entry. Holding education constant, whites were in each case less likely than blacks to be holding their first jobs at the point one year after entry. In all, 63.8% of the whites held only one job in this period, compared to 79.2% of the blacks; 26.8% of the whites and 17.6% of the blacks were on their second jobs; and 9.4% of the whites and 3.1% of the blacks held their third or later jobs at the point a year after entry.

Respondents with no high school were by far the most likely to be on their first jobs a year after entry--84% of the whites and 91.3% of the blacks fell into this category. Significantly smaller proportions of the group with some high school had not changed jobs in this period--70.6% of the whites and 84.9% of the blacks. Men in the three highest educational attainment categories, from high school graduation upward, were less likely to be in their first jobs than the two lower groups but the differences among them were not significant. Among high school graduates, those with some college and college graduates the proportions remaining at their first jobs a year after entry ranged from 55% to 65% for whites, from 65% to 71% for blacks.

TABLE 5

NUMBERS OF JOBS HELD IN THE FIRST YEAR AFTER ENTRY BY RACE AND EDUCATIONAL ATTAINMENT ONE YEAR AFTER ENTRY

		Number of jobs held in 1st year after entry						
		One	Two	Three	Four or more	Average no. jobs held between entry and point 1 year later	Std. dev'n. of no. jobs	Number of cases
No high school	WHITES	84.0%	11.3%	3.0%	1.4%	.227	.61	132
	BLACKS	91.3	7.0	1.6	0.0	.103	.35	184
Some high school	WHITES	70.6	24.8	3.9	0.5	.344	.58	177
	BLACKS	84.9	14.2	0.7	0.0	.158	.38	259
High school graduation	WHITES	55.6	31.2	10.4	2.7	.611	.81	365
	BLACKS	65.6	28.0	6.3	0.0	.407	.60	221
Some college	WHITES	65.4	27.3	4.7	2.2	.452	.75	84
	BLACKS	70.8	22.9	4.1	4.0	.375	.67	48
College graduation	WHITES	52.2	34.4	11.1	2.0	.633	.77	90
	BLACKS	68.0	28.0	4.0	0.0	.360	.56	25
TOTAL	WHITES	63.8	26.8	7.4	2.0	.483	.746	848
	BLACKS	79.2	17.6	3.0	0.1	.240	.501	737

Significantly more job changes occurred by the point two years after entry, though the patterns of frequency of changing did not differ from the data for the one year point. These figures are presented in Table 6. Again the two lowest educational categories showed significantly less job changing than the upper three though there was little difference between the whites and blacks.

Among men with no high school there was some increase in the number of those changing jobs during the second year after entry. At the end of two years' labour force participation, 39.2% of the whites with no high school had left their first jobs, compared to only 16.0% that had done so in the first year; for blacks the figures were 22.9% in the two years, 8.7% in the first year. A similar increase appears in the amount of job changing among men with some high school. In the three highest levels of educational attainment, however, there was a lessened tendency to change jobs in the second year after entry, though the small number of cases makes a precise statement impossible. It appears that high school graduates were the most likely to change jobs on the first two years labour force participation, with those with some college and college graduates changing jobs somewhat less frequently.

In order to make accurate comparisons between whites and blacks at different levels of education some continuous measure of job changing was needed. The one used was arrived at by

TABLE 6

NUMBERS OF JOBS HELD IN THE FIRST TWO YEARS AFTER ENTRY BY RACE AND EDUCATIONAL ATTAINMENT TWO YEARS AFTER ENTRY

		Number of jobs held in 1st year after entry						
		One	Two	Three	Four or More	Average no. jobs held between entry and point 1 year later	Std. dev'n. of no. jobs	Number of cases
No High School	WHITES	61.8%	25.1%	9.9%	2.9%	.580	.93	131
	BLACKS	77.1	15.2	4.3	3.2	.337	.71	184
Some High School	WHITES	46.5	33.9	13.2	6.4	.821	.98	174
	BLACKS	63.9	26.7	6.9	2.2	.480	.74	258
High School Graduation	WHITES	34.5	36.1	19.0	10.4	1.092	1.09	368
	BLACKS	46.4	39.1	10.3	4.0	.725	.82	222
Some College	WHITES	40.4	48.8	4.7	5.7	.773	.84	84
	BLACKS	56.2	35.4	4.1	6.1	.562	.76	48
College Graduation	WHITES	41.3	32.6	18.4	8.4	.956	1.04	92
	BLACKS	64.0	20.0	16.0	0.0	.520	.77	25
TOTAL	WHITES	42.5	34.8	15.0	7.7	.912	1.035	849
	BLACKS	61.5	28.0	7.5	3.1	.525	.777	737

counting the number of jobs held by each respondent up to the time points one and two years after entry. Thus a man that held a four month job starting the month he entered the labor force, followed by jobs lasting twelve months and four years would be scored with the value two at the point one year after entry and three at the point two years after entry. Such an individual would have been on his second job a year after entry (hence the value two) and on his third job two years after entry (hence the value three).

With these continuous variables defined, dummy variable regressions were performed to measure influences of race and educational attainment on the number of jobs held. As in the previous regression analyses of job prestige and wages, ten dummy variables were used to measure the eleven educational attainment levels and a single dummy variable measured the effect of race. Two regressions were performed, with the number of jobs held during the first year after entry and the numbers in the first two years as the dependent variables. The regressions are presented in Table 7.

In neither regression was much of the variance in the numbers of jobs explained. The eleven dummy variables explained 5.9% of the variance in the former case, 5.2% in the latter. In the regression performed on the variable defined one year after entry, the unique effect of race was 0.8% and that of education 3.8%. Similar results were obtained from the

TABLE 7

DUMMY REGRESSION OF RACE AND EDUCATIONAL ATTAINMENT (AT ONE AND TWO YEARS AFTER ENTRY) ON THE NUMBER OF JOBS HELD BETWEEN ENTRY AND THE POINTS ONE AND TWO YEARS AFTER ENTRY

		Variance in number of jobs for job one year after entry	Variance in number of jobs for job two years after entry
Zero-order effects:	Race	1.1%	1.4 %
	Education	5.4	4.4
Unique Effects:	Race	0.5	0.8
	Educational Attainment	4.9	3.8
	Overlap	0.6	0.5
Total Variance Without Interaction		5.9	5.2
Unique Interaction Variance		0.1*	0.2
Total Variance with Interaction		6.0	5.4
		Regression Coeff. in numbers of jobs	Regression Coeff. in numbers of jobs
Main Effects:	Effect of being black	-.169	-.303
	Education 4-7 years	.174*	.163*
	Elementary school graduation	.204*	.384*
	Some high school	.277*	.491
	High school graduation	.541	.775
	Above + vocational	.626	.556*
	Some college	.394	.456*
	College graduation	.640	.684
	Master's degree	.233*	.370*
	Some grad or professional	.835*	1.471*
	Ph.D. or professional degree	.396*	.445*

*All regression coefficients and variances are significant at .05, except those asterisked.

other regression. These results make it clear that while consistent patterns of job changing appeared with respect to the race and educational attainment, almost all of the variance remained unexplained.

The regressions predicted that blacks with the same levels of educational attainment as whites would hold 0.169 fewer jobs in their first year after entry, 0.303 fewer in the first two years. The effect of higher levels of education was to raise the predicted numbers of jobs held in the first two years or first year. Men with some high school held an average of 0.491 more jobs in their first year after entry than those with less than five years schooling, while high school graduates held 0.775 and college graduates 0.684 more jobs than those in the lowest category of educational attainment. This regression analysis bears out the conclusions arrived at on the basis of the frequency distributions.

The Effects of Race and Education One and Two Years After Entry

In order to discover the changes in the effects of race and education that took place in the first two years after entry, the occupational prestige scores and wages of the jobs held one and two years after entry were regressed on these two variables. The regression was again performed with the sample weighted so that blacks constituted approximately the same proportion of the sample as they did of the entire population. Let us deal first with the prestige results, as presented in Table 8.

TABLE 8

REGRESSION OF THE OCCUPATIONAL PRESTIGE OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY ON EDUCATIONAL ATTAINMENT AT THESE POINTS AND RACE WITH THE CASES WEIGHTED TO REPRODUCE THE DISTRIBUTION OF RACE IN THE POPULATION

		Variance one year after entry		Variance two years after entry	
Armed forces jobs included?		Yes	No	Yes	No
Zero-order effects:	Race	1.7%	2.3%	2.4%	3.4%
	Education	35.9	47.1	37.0	48.3
Unique effects:	Race	0.4*	0.3*	0.6**	0.7**
	Education	34.5	45.1	35.2	45.6
	Overlap	1.4	1.9	1.8	2.7
Total variance without interaction		36.3	47.4	37.6	49.0
Unique interaction variance		0.4*	0.4*	0.3*	0.4*
Total variance with interaction		36.6	47.8	37.8	49.4
		REGRESSION COEFFICIENTS IN PRESTIGE POINTS			
Race (cost of being black)		- 2.3**	- 2.6*	- 2.9**	- 3.7**
Education:					
	5-7 years of schooling	- 0.4*	- 0.6*	1.0*	1.2*
	Elementary school graduation	0.8*	0.7*	2.6*	2.2*
	Some high school	4.6*	3.6*	7.2*	6.8*
	High school graduation	7.3	7.4**	9.5	10.6
	Above + some vocational	8.2*	9.9*	9.4	10.3**
	Some college	10.7	13.5	12.9	16.6
	College graduation	23.1	30.2	23.7	30.0
	Master's degree	29.6	35.4	34.4	41.2
	Some graduate or professional	24.0	24.4*	34.5	35.0
	Ph.D. or professional degree	37.9	47.3	37.7	46.0

*All coefficients are significantly different from zero at the .01 level unless doubly asterisked (**) and significantly different at the .05 level unless singly asterisked (*).

There was little difference between these regressions and the one performed in the previous chapter (See Chapter 3, Table 4) using the occupational prestige score of the first job after entry as the dependent variable. Again the unique effect of race was small, accounting only for 0.4% of the variance at the point one year after entry and 0.6% two years after entry. Controlling on education, blacks found jobs averaging 2.3 prestige points below those of whites at the one year point, 2.9 points lower two years after entry. There was a small increase in the cost of being black, the difference between the prestige scores of whites and blacks with equal amounts of education, in the first two years after entry. Thus in the first two years after entry about half the difference in the prestige scores of whites and blacks could be attributed to job and half to unequal educational opportunity.

The changes in the impact of education between entry and the points one and two years after entry were larger. Educational attainment uniquely explained 31.7% of the variance in the prestige score of the first job after entry, 36.6% for the job held one year after entry, and 37.8% for the two year job. Educational attainment becomes an increasingly better predictor of occupational prestige in these two years. There was a small increase in the education regression coefficients over this period too. Thus high school graduation was "worth" 5.8 prestige points (that is the jobs averaged 5.8 points above the average for the lowest category of education) in the prestige score of the first job after entry, a year later it had increased in value to 7.3 points and two years later it was worth 9.3 points. A college degree grew in value from 19.3 points at entry, to 23.1 a year after, and to 23.7 prestige points two years after entry. The amount of interaction variance was negligible.

In the two years after entry, increasing numbers of men entered the armed forces. What is the impact of this trend on the relationship between race, educational attainment and the occupational prestige scores? Regressions with precisely the same format as those described above were performed with only those men that were not in the armed forces included in the case base. These regressions are also described in Table 8. All of the military jobs in question had the prestige score 30.0, the score for the lower ranks of enlisted men. Since all the men entering the armed forces, irrespective of educational attinment, received this one prestige score, the effect of deleting these jobs from the case base should be to raise the variance explained by an amount approximately proportionate to number of men in the armed forces in the sample as a whole.

This prediction is correct. With the non-civilian jobs eliminated, the variance explained in the prestige score of the jobs held one year after entry rose from 36.6% to 47.8%. For the jobs held two years after entry, the variance explained for the sample as a whole was 37.8% in comparison to 49.4% with the military jobs removed. A number of other findings emerge from an examination of the regression coefficients in the pairs of regression that include and exclude military jobs. First, the race coefficient is larger in the equation without the military jobs, i.e. the exclusion of these jobs widens the overall magnitude of the gap between whites and blacks, from 2.3 points to 2.6 points for the jobs held a year after entry, from 2.9 to 3.7 prestige points for those held one year after that. The average prestige score for whites, one year after entry, was 30.5, of blacks 25.5--it is logical that the inclusion of a number of jobs with the score 30.0 should slightly raise the average for blacks and leave that of whites relatively constant (actually it should lower the average slightly).

A pattern of the same kind appears among the educational attainment coefficients. The value of amounts of education up to and including some high school was greater for the sample as a whole than for the smaller group only in civilian occupations. Among those with high school diplomas or more education, the coefficients obtained with the military jobs excluded were larger. This shows that men with less education than a high school diploma made gains in occupational prestige by entering the armed forces in these first two years. The prestige levels of military jobs (never less than thirty) are higher than men with this much education could expect on average for jobs they might find in the civilian work force. Because wages in the armed forces were not available and would be unrealistically low even if they were, there is no analogue to this pattern for the wage variable.

The estimates of the effect of education obtained for the population as a whole that were calculated above reflect almost entirely the results for whites, blacks formed only around a tenth of the population when the weighting procedure was used. So it is fruitful to now examine the relationship between education and occupational prestige for whites and blacks separately. We find that education explained a great deal less of the variance in the prestige scores of blacks than whites. Educational attainment explained 36.2% of the variance in the prestige of the job held a year after entry for whites, 24.3% of the variance for blacks. Two years after entry the variances had risen to 36.9% for whites and 28.4% for blacks. Removing the military jobs from consideration increased the predictive power of education considerably for whites but not as much for blacks.

Variance in wages explained by educational attainment in this two year period fluctuated for whites but increased systematically for blacks. The eleven category education variable explained 19.1% of the variance in the starting wage of the first job for whites, 18.5% in the wage of the job held one year after entry, and 22.9% in the wages of the job held two years after entry. This apparently random fluctuation was probably the result of changes in the case base as whites entered the armed forces in larger numbers during this period (these jobs have no defined wages). For blacks the variance explained by education rose steadily in the first two years after entry, from 12.6% for the starting wage of the first job to 18.1% for the wage one year after entry to 21.7% a year after that.

While there are not enough cases to make a precise analysis, there is no significant difference in the explanatory power of education in terms of wages between blacks and whites at the point two years after entry. This is quite the opposite of the prestige pattern where education explains a good deal more of the variance for whites at each point in these first two years.

Blacks and whites were combined and the customary weighting procedure was used to produce a set of estimates of the impact of educational attainment and race that held for the entire population. The variance explained by the two variables varied approximately as did the result for whites as they comprised about ninety percent of the population. The effect of race increased over this two year period so that the difference between whites and blacks controlling on education rose from $16 to $24 per month in the two years. Comparing these values to the growth from $43 per month to $67 per month in the difference average wages of whites and blacks over this period it appears that during the two years after entry, about one-third of the total wage gap was the result of job discrimination and the remainder was due to discrimination in education. The data are in Table 9.

TABLE 9

DUMMY REGRESSION OF RACE AND EDUCATIONAL ATTAINMENT (AT ONE AND TWO YEARS AFTER ENTRY) ON THE WAGES OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY

		Variance in the wages of the job one year after entry	Variance in the wages of the job two years after entry
Zero-order effects:	Race	1.0%	1.3%
	Education	22.7	19.3
Unique effects:	Race	0.1*	0.2*
	Educational Attainment	21.8	18.1
	Overlap	0.9	1.1
Total variance without interaction		22.9	19.4
Unique interaction variance		0.4*	0.3*
Total variance with interaction		23.3	19.7
		Regression coeff. in dollars	Regression coeff. in dollars
Race (cost of being black)		- 12*	- 24*
Education:			
5 -7 years		26	28*
Elementary school graduation		77	120*
Some high school		132	146
High school graduation		164	183
Above + vocational		185	155
Some college		204	235
College graduation		237	260
Master's degree		466	496
Some graduate or professional		291	209*
Ph.D. or professional degree		370	443

*All regression coefficients and variances are significant at .05, except those asterisked.

In these two years the "worth" of education increases slightly. So that relative to the lowest education group a high school diploma is worth $146 per month at the start of the first job, $164 per month a year after entry, and $183 per month two years after entry. A college degree rises in value from $219 to $237 to $260 per month over this same time. The increase in value appears to vary as the value itself so that a high school diploma increased in value less than "some college" did and so on. With the exception of the rather dramatic rise in blacks' explained variance there were no surprises here. We move on now to consider the impact of other variables when statistical controls are introduced on education.

Other Variables

The quality of the jobs held one and two years after entry is a function of many variables, race and educational attainment are just two. Specifically, the ways in which jobs are found, the industries they are in, and the respondent's marital status may influence these jobs. The task that remains to us in this chapter is to deal with these effects.

The industry of the job a man held two years after entry may or may not be the same as the industry of the first job he found after entry. Two factors determine if a man has changed industries: if the man is still on his first job, then by definition the two industry variables must be the same; if he switched jobs in this period, the job held two years after entry might or might not be in the same industry as his first job. Two analyses are necessary to deal with the effect of variables like this one, one dealing with the impact of the variables defined by the first job after entry (i.e. the industry of the first job, whether the respondent was still employed in that industry at the time point in question) and the other dealing with the effect of the variables defined by the job in question (e.g., the industry of the job held two years after entry).

We might ask what the point would be of studying the impact of the industry of the first job after entry on prestige two years after entry, when the individual could easily be on a second job, to which the industry might be unrelated. The issue is really an important one, for it is part of the larger problem of determining whether or not the characteristics of the first job have any impact beyond their effect on the specific first job they describe. We know that men in the "agriculture, etc." industry have poorer first jobs than other men with the same levels of educational attainment. But does this mean that men entering the labour force via a job in this poorer industry end up with worse jobs later, even if they have found jobs in other industries? If a man whose first job was in agriculture found a job in the transportation industry within two years after entry, is he penalized for the poor first job he had?

The question of whether or not the industry of a job held two years after entry affects the job held then is really a different one from these. We deal with the two problems separately.

First there is an intensive analysis of the impact of the industry of the first job after entry, along with a summary of the results for other variables. The concluding sections of this chapter deal with the impact of several variables describing the jobs held one and two years after entry.

The Effect of the Industry of the First Job After Entry

The industry of the first job after entry had considerable impact on the prestige score of that job and somewhat less effect on its wages. In order to obtain a general estimate of the effect of this variable some time after entry, the prestige score and wage of the job held two years after entry were regressed on this industry variable along with education. The result is presented in Table 10. In this section we concentrate only on the job held two years after entry and do not mention the job held one year after entry. The purpose is to simplify the analysis and to choose a dependent variable that was defined at a point where significant numbers of both whites and blacks had changed jobs one or more times.

For whites the decline in the influence of the industry variable on occupational prestige over this two year period was very marked. The unique variance explained by industry in the prestige of the first job after entry was 6.7%, which decreased to 2.7% for the job held a year after entry and to 1.9% at the two year point, as shown in Table 10. For blacks the decline was not so rapid; the corresponding variances were 5.5% for the first

TABLE 10

REGRESSION OF THE OCCUPATIONAL PRESTIGE SCORE AND WAGE OF THE JOB HELD TWO YEARS AFTER ENTRY ON THE INDUSTRY OF THE FIRST JOB AND THE RESPONDENT'S EDUCATIONAL ATTAINMENT TWO YEARS AFTER ENTRY, BY RACE

		Variance in the Prestige Score of the Job Held 2 Yrs. After Entry		Variance in the Wages of the Job Held 2 Yrs. After Entry	
		Whites	Blacks	Whites	Blacks
Zero-order Effects:	Education	40.7%	27.4%	14.1%	18.8%
	Industry	11.7	13.8	2.4	7.4
Unique Effects:	Education	30.1	17.6	12.3	13.0
	Industry	1.9	4.0	0.5*	1.7*
	Overlap	9.9	9.8	1.9	5.8
Total Variance Without Interaction		42.6	31.4	14.7	20.4
Unique Interaction Variance		2.5*	4.2*	2.2*	2.5*
Total Variance with Interaction		45.2	35.6	16.9	23.0
		REGRESSION COEFFS. IN PRESTIGE POINTS		REGRESSION COEFFS. IN DOLLARS	
Education:	Some High School	4.8	0.8*	74	60
	High School Graduation	7.3	5.1	107	93
	Some College	11.7	8.4	176	192
	College Graduation	27.1	21.7	243	175
Industry:	Manufacturing	3.5	2.6	13*	29*
	Transportation	4.4	4.3*	-6*	47*
	Wholesale & Retail Trades	3.3	2.2	-16*	14*
	Finance	4.4*	5.5	-56*	88
	Business	4.4	6.0	7*	41*
Regression Constant		21.3	20.3	192	141
Number of Cases		704	612	469	445

*Significantly different from zero at the .05 level.

job after entry, 5.7% a year after entry, and 4.0% two years after entry. Furthermore the magnitudes of the regression coefficients for the industries declined in magnitude over this period though the general patterns remained stable. That is the jobs in the finance and business industries had the highest prestige scores, followed by transportation and manufacturing, with "agriculture, etc." and wholesale and retail trades last. This pattern appeared for both races.

Taking now the wages of the jobs held one and two years after entry and performing an analysis like the one above, we obtain very similar results. The effect of the first job industry declined over the first two years' labour force participation. Over the period from the start of the first job after entry to the point one year after entry to the point one year after that the unique variance explained by the industry variable declined from 2.8% to 2.1% to a negligible 0.5% for whites and from 2.1% to 1.9% to 1.7% for blacks. It is difficult to compare the regression coefficients measuring the impact of the individual industries as almost all of them were statistically insignificant.

Blacks changed jobs less frequently than whites during this period. Thus it may be that the smaller decline in the impact of industry for blacks was simply the result of there being more blacks in the same industry at entry and two years later than whites. The above results would then follow tautologically and would be spuriously caused by blacks tendency to hold their jobs for longer periods. We test this hypothesis by repeating the regressions described above with the sample split into two parts: men still on their first jobs two years after entry and those that changed jobs at least once during this period. The results of these regressions are presented in Tables 11 and 12 for the prestige and wage variables respectively. Men in the armed forces at the point two years after entry were excluded from the calculation.

Dealing first with the prestige variable, there was a big difference in the zero-order variances explained by the industry of the first job. The zero order variance was 30.9% for whites still on their first jobs compared to only 6.6% for the men that changed jobs in the two year period. For blacks the proportion of the variance fell from 19.2% to 10.0%. Controlling on educational attainment, the unique variances were 5.4% for men that didn't change jobs and 1.8% for those that did so, for whites. Among the blacks, however, the unique variance remained stable over this period at 4.9%! While the results were rather erratic it appears that the impact of the industry of the first job was negligible for whites not still on their first jobs, but that this first job industry had some continuing impact for blacks.

A similar pattern appeared when the wage of the job held two years after entry was used as the dependent variable. The unique variance in wage explained by industry was 2.2% for

TABLE 11

REGRESSION OF THE OCCUPATIONAL PRESTIGE SCORE OF THE JOB HELD TWO YEARS AFTER ENTRY ON THE INDUSTRY OF THE FIRST JOB AFTER ENTRY AND EDUCATIONAL ATTAINMENT TWO YEARS AFTER ENTRY, BY RACE AND WHETHER OR NOT THE RESPONDENT HAD CHANGED JOB DURING THE FIRST TWO YEARS AFTER ENTRY

Respondents who entered the armed forces as their first jobs are not included in this regression

		On 1st job 2 yrs. after entry		On 2nd or later job 2 yrs. after entry (not in military)	
		Whites	Blacks	Whites	Blacks
Zero-order effects:	Education two years after entry	55.9%	33.2%	40.7%	23.9%
	Industry of first job	30.9	19.2	6.6	10.0
Unique effects:	Education two years after entry	30.5	18.9	35.9	18.8
	Industry of first job	5.4	4.9	1.8	4.9
	Overlap	25.4	14.3	4.7	5.1
Total variance without interaction		61.4	38.1	42.5	28.8
Unique interaction variance		3.2	6.5	3.1	14.7*
Total variance with interaction		64.6	44.7	45.6	43.5
		Regression Coefficients in Prestige Points			
Education:	Some high school	2.1*	0.0*	5.8	0.3*
	High school graduation	7.5	5.3	7.6	3.1
	Some college	13.4	11.3	14.5	5.6
	College graduation	33.3	20.2	29.0	22.7
Industry:	Manufacturing	6.4	2.2*	3.7	3.2*
	Transportation	9.9	1.6*	2.1	12.0
	Wholesale	4.5*	1.1*	4.0	2.5*
	Finance	14.6	5.2*	- 2.4	5.2*
	Business	7.8	7.8	2.9	4.1*
Number of Cases		241	342	293	177

*Not significantly different from zero at the .05 level of significance.

TABLE 12

REGRESSION OF THE WAGE OF THE JOB HELD TWO YEARS AFTER ENTRY ON THE INDUSTRY OF THE FIRST JOB AFTER ENTRY AND EDUCATIONAL ATTAINMENT TWO YEARS AFTER ENTRY, BY RACE AND WHETHER OR NOT THE RESPONDENT HAD CHANGED JOBS DURING THE FIRST TWO YEARS AFTER ENTRY

Respondents who entered the armed forces as their first jobs are not included in this regression

		On 1st job 2 yrs. after entry		On 2nd or later job 2 yrs. after entry (not in military)	
		Whites	Blacks	Whites	Blacks
Zero-order effects:	Education two years after entry	30.1%	16.9%	7.1%*	20.7%
	Industry of first job	9.6	7.1	1.1*	11.5
Unique effects:	Education two years after entry	22.6	11.5	7.1	13.3
	Industry of first job	2.2*	1.8*	1.2*	4.0*
	Overlap	7.4	5.4	-0.1*	7.4
Total variance without interaction		32.3	18.7	8.3	24.8
Unique interaction variance		5.9*	4.8	5.0*	12.2*
Total variance with interaction		38.2	23.5	13.2	36.9
		Regression Coefficients in Dollars			
Education:	Some high school	89	52	25*	65
	High school graduation	131	89	49*	84
	Some college	163	202	153	168
	College graduation	316	150	172	242
Industry:	Manufacturing	41*	33*	- 4*	29*
	Transportation	64*	35*	-56*	118*
	Wholesale	11*	2*	-35*	41*
	Finance	46*	88*	-69*	118*
	Business	-21*	31*	11*	62*
Number of Cases		203	281	266	164

*Not significantly different from zero at the .05 level of significance.

that did not move in the two year period, 1.2% for those that moved. For blacks the variance explained for those that moved, 4.0% was larger than the 1.8% explained for men staying at their first jobs, 1.8%.

The very same results appeared when this analysis was repeated with the means of finding the first job substituted for the industry of the first job. The means of finding the job had little impact on the second or later jobs of whites but exerted a strong continuing influence on the wages and prestige scores of blacks that left these first jobs. The clear implication is that these first jobs were more important to blacks, that they had more of a continuing impact for blacks than for whites. This implies that there is less occupational mobility for blacks than whites who are relatively free of the effects of their first jobs after entry once they have left them. In the sixth chapter this finding is corroborated using a different sort of methodology.

The Industry of the Jobs Held One and Two Years After Entry

The distribution of men in the six civilian industry categories changed little over the first two years' labour force participation. Of course many men were still on their first jobs at the points one and two years after entry and so the distributions of men at the start ot their first jobs and one and two years after entry were not independent. Only a few small trends appeared in the industrial composition of the work force here. Among blacks and whites the proportion in the finance group increased from just over two and a half percent to just over four percent of the sample in these two years while the proportions in the wholesale and retail trades fell by around two percent over this period. The proportions of men in the "agriculture, etc.", manufacturing, and transportation industries fell by around one percent in this time. The exact data are shown in Table 13. The relative stability of this occupational distribution occurred at a time when more and more men were dropping out of the civilian labour force and entering the armed forces.

Industry had a strong impact on the occupational prestige scores of jobs, both at entry and one and two years later. The regression results are in Table 14. Controlling on education, the unique effect of industry decreased in the two year period, from 6.7% to 4.9% for whites and from 5.5% to 3.3% for blacks. However the portion of the variance overlapping with educational attainment increased from 12.7% to 20.9% for whites and from 7.2% to 10.1% for blacks over this two year interval. The total variance explained in the prestige scores of the jobs held two years after entry was 50.8% for whites, 32.3% for blacks. Thus the impact of industry grows over this period, though more of its effect becomes indistinguishable from that of education.

The effects of the individual industries were large and often statistically significant, in spite of the small numbers in each industry. These coefficients, calculated with educational

TABLE 13

DISTRIBUTION OF MEN AMONG SIX INDUSTRY CLASSIFICATIONS FOR THE FIRST JOB AFTER ENTRY AND THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY, BY RACE, OMITTING THOSE IN THE ARMED FORCES

	WHITES			BLACKS		
	1st job after entry	job held 1 yr. later	job held 2 yrs. later	1st job after entry	job held 1 yr. later	job held 2 yrs. later
Agriculture, mining and construction	32.2%	28.5%	31.7%	34.0%	34.2%	33.0%
Manufacturing	26.6	28.5	28.1	26.5	26.0	26.5
Transportation	7.8	8.5	8.4	2.8	3.2	3.8
Wholesale and retail trades	19.4	19.3	17.2	20.4	21.4	18.9
Finance	2.8	3.9	4.1	2.6	3.4	4.1
Business	11.2	11.1	10.4	13.7	11.9	13.7
Number of Cases	708	610	558	619	565	533

TABLE 14

REGRESSION OF THE OCCUPATIONAL PRESTIGE OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY ON INDUSTRY AND EDUCATIONAL ATTAINMENT DEFINED FOR THESE JOBS, BY RACE. INDIVIDUALS IN THE ARMED FORCES AT THESE POINTS ARE EXCLUDED FROM THE CALCULATION

		WHITES			BLACKS		
		1st Job after entry	Job held 1 yr. later	Job held 2 yrs. later	1st Job after entry	Job held 1 yr. later	Job held 2 yrs. later
Zero-order effects:	Education	32.6%*	45.5%*	45.9%*	16.4%*	22.9%*	29.1%*
	Industry	19.4*	26.0*	25.8*	12.7*	14.0*	13.4*
Unique effects:	Education	19.9*	24.7*	25.0*	9.2*	14.1*	18.9*
	Industry	6.7*	5.2*	4.9*	5.5*	5.2*	3.3*
	Overlap	12.7*	20.8*	20.9*	7.2*	8.8*	10.1*
Total without interaction		39.3*	50.7*	50.8*	22.0*	28.1*	36.3*
Unique interaction variance		4.2	3.9	3.8	5.7*	8.3*	7.5*
Total with interaction		43.5*	54.6*	54.6*	27.7*	36.4*	39.8*
		REGRESSION COEFFICIENTS IN PRESTIGE POINTS					
Education:	Some high school	1.6	2.4	5.0*	0.2	0.3	0.0
	High school graduation	4.3*	6.4*	8.2*	2.3**	3.6*	4.3*
	Some college	9.5*	11.6*	14.4*	6.4*	8.7*	8.9*
	College graduation	22.0*	28.1*	27.6*	16.4*	21.1*	23.9*
Industry:	Manufacturing	5.3*	5.6*	5.0*	2.5**	2.6**	2.0
	Transportation	6.6*	7.4*	6.4*	0.3	1.2	1.8
	Wholesale and retail trades	3.6*	3.5**	0.9	1.3	1.0	1.2
	Finance	10.9*	6.3	7.0*	10.3*	10.7*	7.0*
	Business	11.2*	11.3*	10.3**	6.0	5.7*	5.3*
	Regression Constant	19.7	19.2	20.2	20.2	20.2	20.5
Number of Cases		701	605	555	616	560	828

*Significantly different from zero at the .01 level.

**Significantly different from zero at the .05 level, but not at the .01 level.

attainment held constant, did not vary systematically over the time from the start of the first job to the point two years after entry. The "agriculture, etc." group comprised the lowest prestige jobs at all three time points, for both races. The other coefficients displayed some variation across race. Jobs in the wholesale and retail trades varied little from the base agriculture category for blacks (they averaged around one prestige point above these jobs) while whites in wholesale and retail trade had prestige scores about three points above the lowest category. Throughout the two year period the race difference was largest in the transportation industry where blacks were only a point above the base group compared to the difference of seven points for whites. Similarly, blacks in the manufacturing industry were around two and one half points above the baseline, compared to about twice this figure for whites. Business industry jobs averaged around eleven points above the agriculture group for whites, but the difference was just half as large for blacks. The only industry in which there was no significant race difference was finance, a group whose prestige scores averaged eight points above the baseline.

In Table 15 the results of running these regressions with the wage variables are presented. Once more there was a remarkable consistency to the results at the three points in time. No important trends in the values of the regression coefficients appeared and the variance due to the industry

TABLE 15

REGRESSION OF THE STARTING WAGE OF THE FIRST JOB AFTER ENTRY AND ONE AND TWO YEARS AFTER ENTRY ON INDUSTRY AND EDUCATIONAL ATTAINMENT DEFINED FOR THESE JOBS, BY RACE. INDIVIDUALS IN THE ARMED FORCES AT THESE POINTS IN TIME ARE EXCLUDED FROM THE CALCULATION

		WHITES			BLACKS		
		1st Job after entry	Job held 1 yr. later	Job held 2 yrs. later	1st Job after entry	Job held 1 yr. later	Job held 2 yrs later
Zero-order effects:	Education	16.0%*	18.5%*	13.5%*	11.4%*	16.2*	19.0%*
	Industry	3.8*	6.5*	3.0*	5.5*	6.4*	5.7*
Unique effects:	Education	15.0*	15.7*	11.9*	8.0*	12.3*	14.6*
	Industry	2.8*	3.6*	1.4	2.1	2.5**	1.2
	Overlap	1.0*	2.9*	1.6*	3.4*	3.9*	4.5*
Total without interaction		18.8*	22.1*	14.9*	13.5*	18.7*	20.3*
Unique interaction variance		3.5	3.3	1.7	4.2	5.2	4.6
Total with interaction		22.3*	25.4*	16.6*	17.7*	23.9*	24.8*
		REGRESSION COEFFICIENTS IN DOLLARS					
Education:	Some high school	79*	77*	71**	55*	63*	67*
	High school graduation	102*	111*	103*	71*	86*	98*
	Some college	123*	141*	156*	125*	178*	197*
	College graduation	215*	244*	261*	132*	153*	197*
Industry:	Manufacturing	24	43**	22	25	34**	29
	Transportation	16	31	20	28	14	14
	Wholesale and retail trades	-31	-23	-29	- 4	- 3	- 1
	Finance	-36	-53	-47	85**	96**	62
	Business	-31	- 9	-35	20	11	10
	Regression constant	149	149	191	134	139	146
Number of Cases		618	536	489	526	482	453

*Significantly different from zero at the .01 level.

**Significantly different from zero at the .05 level, but not at the .01 level.

variables changed little over this time. Again all the coefficients were calculated relative to a base of men in the "agriculture, etc." industry with educational attainment inserted as a control. Large race differences appeared for two of the categories: blacks in the business industry had jobs averaging $15 per month above the base group while whites made about $30 per month less than the base group. The gap was even larger for men in the finance industry where whites earned an average of $45 per month below the base group and blacks were $80 above this base group.

It appears that blacks are generally better off with respect to wages than whites. This is not the case. For the regression constants in the two equations differed by $45 per month, so that the base category "agriculture, etc." offered considerably worse jobs for blacks than whites. In fact the difference between whites and blacks was quite small after the effect of the blacks' educational attainment deficit was controlled.

For the men that changed jobs at least once in their first two years' labor force participation, it was possible to calculate the probability that they remained in the industry of their first jobs after two years. There was little race variation and it was found that men in the wholesale and retail trades, finance, and business were still in the same industries about thirty percent of the time. Those whose first jobs were in the "agriculture, etc.", manufacturing, and transportation industries did not change industries when they changed jobs in sixty percent of the cases. In each case the retention probabilities of blacks were somewhat smaller than those of whites.

These persistence measures were not strongly correlated with the proportions of the population in the industries in question and so it appears that industries can be characterized by different retention rates over this two year period. The paucity of this data does not provide a basis for a more extensive analysis. A more complex investigation might reveal some relationship between the retention rate of an industry and the skill level composition of that industry. Finally we move on to deal with the marital status of the men in the two years following entry into the labour force.

The Means of Finding the Jobs Held One and Two Years After Entry

A tabulation of the means men used to find their first jobs after entry and the ones held one and two years after entry revealed little changes in the distributions over time. Again we should note that the distributions were not totally independent as many men did not change jobs in this period. A few small trends do appear in this data, presented in Table 16. The most important one was in the numbers that found their jobs through promotions. This proportion grew from approximately zero (there were no jobs to get promoted from for most men at the

TABLE 16

THE MEANS MEN USED TO FIND THE JOBS THEY FIRST FOUND AFTER ENTRY, AND THE JOBS HELD ONE AND TWO YEARS LATER, BY RACE, OMITTING MEN IN THE ARMED FORCES

	WHITES			BLACKS		
	1st job after entry	job held 1 yr. later	job held 2 yrs. later	1st job after entry	job held 1 yr. later	job held 2 yrs. later
Friends	23.8%	27.8%	23.1%	29.3%	28.7%	27.7%
Family	31.8	28.5	28.3	31.5	30.3	30.2
Public Agency	2.7	1.5	1.0	3.1	2.9	3.5
Private Agency	2.3	2.8	3.8	0.9	1.0	1.5
Advertisements	4.8	4.2	4.7	3.5	4.1	3.5
Direct Application	34.6	30.8	31.4	31.7	31.6	31.9
Promotion	-	4.4	7.7	-	1.4	1.7
Number of Cases	628	543	494	552	512	480

time they found their first jobs) to 7.7% of the total for whites and 1.7% for blacks for the job held two years after entry. It is clear that blacks were much less likely to receive promotions in this period than whites. Aside from small trends towards the more frequent use of private agencies and among whites especially a drop in the use of public employment agencies, the patterns remained stable over this period with the race difference being perpetuated over time.

The effect of the means of finding jobs on occupational prestige scores appeared to increase in the first two years after entry for whites while it remained relatively constant for blacks. The results are in Table 17. At the start of the first job after entry the means of finding the job accounted for 6.5% of the variance in prestige at the zero-order level for whites, 4.8% for blacks. Two years later the zero-order effect had grown to 13.4% for whites, but only to 5.3% for blacks. For whites the unique variance rose from 1.7% to 2.4% and the effect that overlapped with education rose from 4.7% to 11.0%. This rise in the variance attributable to the "means" variables did little to change the directions and magnitudes of the coefficients measuring the effect of the specific means of finding jobs.

Controlling on educational attainment, the regression coefficients obtained were of approximately the same magnitudes for the three time points at which the regressions were calculated. For both races, the jobs located by members of the mens' families

TABLE 17

REGRESSION OF THE OCCUPATIONAL PRESTIGE SCORE OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY ON THE MEANS OF FINDING THE JOB AND EDUCATIONAL ATTAINMENT AT THE POINT IN QUESTION, BY RACE. INDIVIDUALS IN THE ARMED FORCES AT THESE POINTS IN TIME ARE EXCLUDED FROM THE CALCULATION

	WHITES			BLACKS		
	1st Job after entry	Job held 1 year later	Job held 2 years later	1st Job after entry	Job Held 1 year later	Job Held 2 years later
Zero-order Effects: Education	30.6%*	44.8%*	47.3%*	18.6%*	24.4%*	30.2%*
Means of finding the job	6.5*	11.1*	13.4*	4.8*	5.6*	5.3*
Unique Effects: Education	25.9	36.0*	36.3*	15.4	26.0	26.1*
Means of finding the job	1.7**	2.3**	2.4	1.6	1.2	1.3
Overlap	4.7*	8.8*	11.0*	3.2	4.4*	4.0*
Total Variance Without Interaction	32.3*	47.1*	49.7*	20.2*	25.6*	31.5*
Unique Interaction Variance	4.2	2.7	3.5	3.4	4.6*	4.7
Total Variance with Interaction	36.6*	49.9*	53.2*	23.6*	30.3*	36.2*
	REGRESSION COEFFICIENTS IN PRESTIGE POINTS					
Education: Some high school	2.5	3.8	5.8*	0.6	0.7	0.9
High school graduation	5.1	6.9*	8.7*	3.8*	4.6*	5.6*
Some college	9.4	12.1*	15.3*	6.8*	9.7*	10.7*
College graduation	24.5	31.4*	31.2*	20.9*	25.5*	27.5*
Means of Finding the Job:						
Family	-1.3	-1.0	-2.3	-2.1	-1.6	-0.8
Public agency	1.7	-1.8	4.5	3.7	2.5	4.0
Private agency	7.0	8.1*	4.1	0.7	2.0	0.0
Advertisements	2.0	3.8	1.9	1.6	2.0	0.6
Direct application	2.1	2.4	2.1	0.0	0.6	1.5
Promotion	--	5.8	4.9	--	2.0	1.3
Regression Constant	22.6	21.9	22.5	22.1	21.7	21.1
Number of Cases	620	541	492	552	511	479

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

were lowest in prestige followed by the ones found by friends. The jobs found by advertisements and through direct application were about two points better and the ones found through agencies, public and private, ranked about four points above the base group for whites. The pattern was not the same for blacks. Jobs found through private agencies, advertisements, direct application, and promotion were all between zero and two points above the base group. Blacks that found jobs through public agencies gained about four prestige points above the reference. The means of finding jobs had a relatively unvarying but quite small impact on the prestige scores of jobs held in this two year time span.

The results of substituting wages for occupational prestige scores as the dependent variable yielded rather similar results. In contrast to these previous findings the means of finding the job increased in importance during these two years for both whites and blacks. The unique variances in wage for the first job explained by the means variable were 0.9% for whites, 0.8% for blacks, after two years the corresponding values had increased to 1.6% and 2.3%. Once again there was a great deal of random variation in the individual estimates of the effect of the specific means of finding a job obscured changes in their values over the two years.

Controlling for the effect of education, the jobs found through family and friends were the lowest paying, for both blacks and whites. For blacks, jobs found through advertisements were no better. The jobs found through private agencies averaged $60 per month better than this base group. Those located by public agencies averaged $40 better than the reference group for whites but the effect of this means of finding a job was erratic for blacks. Direct application resulted in jobs paying $30 per month above the base group for blacks and whites. As was the case with the prestige variable, whites obtained real benefits (around $65 per month) from finding jobs by promotion while for blacks the effect appeared to be positive but could not easily be estimated because of the very small numbers of blacks receiving promotions.

Finally we might ask if men had individual styles of finding jobs--having found a first job by some method, was a man likely to use this method to find a second or third job? Only among men who found their first jobs through friends, family, and direct application were there enough men that changed jobs in this two year period to generate meaningful statistics. Among men whose first jobs were found through friends, half again used this means to find the job held two years after entry (counting in only those not on the first job at this point), compared to only one in four in the population as a whole that used friends to find these jobs. Thus twice as large a proportion of men who found their first jobs in this way used the method again as was true for the group as a whole. About forty percent of the men that found their first jobs through family members used this means again, compared to thirty percent of the population as a whole using this method. Approximately the same result held for men finding their first jobs by direct application. Thus there was certainly a tendency for men to persist in using a particular means of finding jobs--unfortunately the small numbers of men changing jobs in this period made it difficult to arrive at a good estimate of the magnitude of this effect.

Marital Status One and Two Years After Entry

Within each category of education, the proportion of men that were married slowly increased in the two years following entry (the percentages are shown in Table 18). At the end of two years one pattern was quite clear: for both races the proportion of men that were married varied directly with educational attainment. Comparatively few of the men were married at the two year point, only among white college graduates were more than half the respondents married, after two years in the labour force.

Let us now examine the proportions of men that were married in each of the five educational attainment categories for the time point two years after entry. At the two lowest levels blacks were more likely to be married than whites: 6.5% of the blacks versus 1.5% of the whites for men with no high school, and 16.9% versus 11.5% for those with some high school. Equal proportions of white and black high school graduates (17% of the

TABLE 18

MARITAL STATUS BY EDUCATIONAL ATTAINMENT AND RACE AT THE START OF THE FIRST JOB AFTER ENTRY AND ONE AND TWO YEARS AFTER ENTRY

	WHITES			BLACKS		
	1st job after entry	job held 1 yr. after entry	job held 2 yrs. after entry	1st job after entry	job held 1 yr. after entry	job held 2 yrs. after entry
No High School	0.8% (132)	0.8% (131)	1.5% (130)	0.5% (184)	3.3% (184)	6.5% (184)
Some High School	2.8 (179)	6.3 (176)	11.5 (174)	5.4 (260)	9.8 (255)	16.9 (254)
High School Graduation	2.2 (365)	8.8 (364)	16.8 (368)	1.8 (221)	9.6 (218)	17.5 (217)
Some College	6.0 (83)	21.4 (84)	27.4 (88)	14.6 (48)	30.6 (49)	28.8 (49)
College Graduation	27.5 (91)	47.2 (91)	57.7 (92)	12.0 (25)	24.0 (25)	28.0 (25)
Total Number of Cases	851	847	848	738	731	729

whole) and men with some college (28%) were married at the two year point. For college graduates, 57.7% of the whites and only half as many of the blacks were married. In this last category the average wage for whites is around a year greater than that of blacks while at all the other levels of education the groups of both races have relatively equal age distributions.

The effect of the respondents' marital status, measured in prestige and wage terms, remained constant over the first two years after entry. Whites who were married had jobs averaging two prestige points and $47 per month higher than unmarried whites, at the point two years after entry and with the effect of educational attainment controlled. Married blacks found jobs averaging 1.3 prestige points lower but $32 per month higher than single men. In terms of wage, the difference between single and married men appeared to increase in the first two years after entry. Two years after entry the unique variance due to the marital status variable, controlling on education, was 0.9% for the prestige scores of whites and 0.8% for blacks; for wages the variances were 0.4% for whites, and 0.3% for blacks. The small numbers of men that were married, especially in the low education categories, and the numerically small size of the effect combined to render these results very unreliable.

This completes our survey of the effects of variables defined at the points one and two years after entry. It is clear that the three variables studied, marital status, industry, and the means of finding the job, showed no dramatic shifts in their distributions over the two year period and that their effects on the quality of the jobs held during this time represented a continuation of and not a break from the impact they had on the first job after entry.

Summary

The most important change that occurred over this two year period was the gradual flow out of civilian occupations and into the armed forces. By the point two years after entry around a third of the men were in the military. For those with some high school or less education, the military jobs were better than the ones they could expect to find in the civilian labour force; for those with more education they were not as good as ordinary jobs.

Over this period there was a small upward trend in prestige scores and wages for both blacks and whites and also a small but perceptible increase in the gap between whites and blacks. While men with no high school remained mired in bad jobs over this period, for all other educational attainment groups the numbers of men in very low status jobs decreased markedly as they found better jobs or entered the armed forces. The result of this trend was to increase the predictive power of education over this period, this the result of men with jobs much worse than they could expect on the basis of their level of educational attainment moving to new ones.

The data did not convey the impression that this was a period of particular instability. The durations of the jobs held in this period were relatively long, with three-quarters of the whites and five-sixths of the blacks still on their first jobs one year after entry. There was clearly a differential distribution of the job changing that did take place, whites and men with higher levels of education changed jobs more frequently. Thus men with few resources were not unstable at all--rather than being "shiftless" they stayed in their poor jobs for far longer periods of time than men with more education stayed in their better jobs! This pattern suggests that institutional barriers are set up that restrict the mobility of men with little education and those that are black, they simply cannot or will not leave their poor jobs quickly.

Variables that described the first job after entry, such as the industry of that job and the means of finding it, had little impact beyond the time span of that specific jobs for whites, but considerable impact beyond the duration of the job for blacks. Thus the industry of the first job after entry only had impact on the jobs of whites held two years after entry if the individual had not changed jobs. For blacks, any job held at this point was affected by the industry of the first job. In either case, the impact of a specific industry was very similar to the result obtained from the regression of the prestige scores or wages of the first job on the industry of that job. Thus the first job after entry and the variables describing it appeared to have far more impact on the wages and prestige scores of blacks than whites in this period.

The general appearance of this two year period after entry was that it was quite stable and that a systematic "settling down" took place rapidly. We now begin an analysis of entry with multivariate techniques, building on the careful examination of the effects of different variables in this and the previous chapter.

CHAPTER V

JOBS BEFORE ENTRY

Our discussion has so far concentrated exclusively on the jobs men held after entry into the labor force. Most men had some work experience before entry, experience which could have taken place in a variety of contexts including summer jobs, jobs held during years taken off from school, and different kinds of part-time jobs held during weekends and non-school hours. As was the case with jobs held after entry, these earlier work experiences were not only the product of accidental forces; the number and quality of these pre-entry jobs were consistently related to the race, social class, and education of the men. The task of this chapter is to describe these patterns of relationships.

The analysis is in two parts: a description of the factors influencing the extent of pre-entry job holding will be followed by an examination of the quality of these jobs. Blacks and whites will be considered separately at each point. Aside from race, the analysis will concern itself with three important causal factors, the social class of the family in which the individual grew up, the age at which he entered the labor force, and his educational attainment at that point. The effect of social class was measured by four variables--the educational attainment of each parent, the number of brothers and sisters of the respondent, and the occupational prestige score of his father. The other two factors are self-explanatory.

While the distinction is not absolutely clear cut, it is possible to separate this pre-entry work experience into full-time and part-time jobs. Almost all of the full-time jobs were held during summer months while on school vacation though in a few cases men took a year off from school or held a full-time job while simultaneously attending school full-time and without entering the labor force, according to our definition. Part-time jobs were often held concurrently with full-time schooling. Age at entry was taken as a measure of the length of time for which an individual was exposed to the labor market, and hence the possibility of taking a job. Educational attainment at entry was used as a summary measure of the respondents' levels of skills during the pre-entry period. We should note that, as is the case throughout this analysis, there is no control on the market side of this work experience. No accounting is made of the region of the country and of the availability of these jobs at different points in time.

Method

A number of methodological difficulties arose in the course of analyzing this data. The most straightforward of the variables present no problems--for each individual there was an easily defined number of part-time and of full-time jobs held before entry into the labor force and these results are amenable to statistical analysis. The difficulty appears when an attempt is made to summarize other features of this work activity. Many individuals had no such jobs before entry at all and so had to be eliminated from the analysis entirely, drastically diminishing the case base. The problem was worst for blacks holding full-time jobs before entry--only 104 of the 738 in the sample, or about fourteen percent, held one or more such jobs. A case base this small enormously increases the statistical problems in attempting to make any assertions about the data at all.

But this is not the end of the problem. Within the case base that exists, respondents had unequal numbers of jobs. Thus a college graduate might have to be compared to an individual with only some high school, in spite of the fact that the former had six full-time jobs before entry and the latter had only one such job. While the comparison between the numbers of jobs held by individuals with different levels of educational attainment at entry is not difficult, summary measures of their job experience must be generated if any comparison of the quality of the pre-entry jobs is to be made.

Six statistics summarizing pre-entry work experience were created, three for full-time jobs and three for part-time jobs. These were calculated only for those individuals with one or more jobs, either full-time or part-time, so that for a respondent with two full-time jobs before entry and no part-time jobs in this period, only the three figures summarizing the full-time work experience would be defined. These variables are the average duration of the set of pre-entry jobs and the time-weighted average prestige score and wage for the jobs. The first of these was simply the average of the durations of the jobs in question (either full-time or part-time). So a man with three part-time jobs before entry that lasted three months, ten months, and six months would be scored six and two-thirds months. The time weighted average of prestige (or wages) was arrived at weighting each job by its duration and taking the average. Thus if the three jobs above had prestige scores of 20.0, 31.0, and 25.0 respectively, the time weighted average is formed by taking the products of the durations and prestige scores for the three jobs, adding them up and then dividing by the sum of the durations. So the time weighted prestige average is in this case equal to (20.0 x 3 months + 31.0 x 10 months + 25.0 x 6 months)/(3 + 10 + 6 months) or 27.3 prestige points. In computing the wage averages the mean wage of the starting and ending wages of the job was used. If a job was held partly in the pre-entry period and overlapped into the time after entry had taken place, only the part of the job held before entry was considered.

Another methodological difficulty lies in the use of educational attainment at entry to represent the level of skills of the respondent and of age at entry to measure the amount of exposure to the labour market before entry. A measure of education at entry can at best summarize a respondent's abilities in the pre-entry period. In fact his level of skills varied continuously in the period before entry, in a way that cannot necessarily be measured by educational attainment at one point in time. Further, there is no real proof that the pre-entry jobs, most of them needing only very low levels of skill, required the abilities developed by formal schooling. A similar problem exists for the age variable; while it constitutes a good measure of the amount of time the individual was exposed to the possibility of finding jobs before entry, there is no way of learning whether or not age itself influenced the availability of jobs in this period.

Finally, there was one more unresolveable technical problem: not only is it difficult to know the real meaning of the age and education at entry variable, but in practice it is very difficult to separate the two of them. For whites the simple correlation between education and age at entry was 0.89, for blacks it was 0.73! This should not be surprising, individuals with more education enter the labor force later, and vice versa. In large measure, the two variables here are indicators of the very same thing. Unfortunately multiple regression techniques are of little help in separating the effects of two variables displaying as much multicolinearity as do these two. Estimates of the relative importance of two such variables become very unstable and prone to random error in the presence of such high intercorrelations.

Very little can be done to combat these statistical problems. While they are openly acknowledged, and the analysis here may clear up some of them, this sort of uncertainty plagues much of this research and we proceed nonetheless.

In order that no linearity assumptions be made and so that age at entry and educational attainment at entry would be entered on relatively the same basis, each was measured by four dummy variables. Education was divided into the five conventional categories while age at entry was split in five categories comprising approximately equal numbers of respondents: men that entered before age 16, at age 16, at age 17, at age 18, at age 19 or older. Four dummy variables measured the differences between the "before age 16" category and each of the other four. As has been the case for educational attainment, the dummy variables each represent deviations from the base categories and not marginal increments over the preceding category.

The numbers of full-time jobs held before entry are described first, followed by a similar analysis of the numbers of part-time jobs held and the relationship between these two kinds of job holding. The durations of these jobs, and their occupational prestige scores and wages will then be dealt with.

Numbers of Full-Time Jobs Before Entry

Only a minority of the respondents in the study had any full-time jobs before entry. About a third of the whites (38.1%)

and one seventh of the blacks (14.1%) held one or more of these jobs. The distribution of these jobs was very much a function of educational attainment at entry. In Table 1 the percentages of individuals with some work experience are presented, controlling on educational attainment and race.

In the first two columns we find that the percentage of respondents with one or more such jobs increases monotonically and quite uniformly with education at entry, increasing from 7.6% of the whites with no high school to 90.2% of the college graduates. The relationship between the white and black proportions was very simple and extremely consistent: at each level of education at entry, twice as large a proportion of the whites as of the blacks have held one or more full-time jobs before entry.

There is a great increase in the number of respondents with one or more jobs as we move up each educational attainment level. For whites, less than one in ten of those entering with no high school had a full-time job before entry, compared to about four in ten high school graduates, compared to nine in ten college graduates. The same pattern exists for blacks, though the percentages were only half as large.

A more sophisticated way of looking at these results is also possible. The average number of full-time jobs held by the respondents in each of the categories was computed. This measure yields a more subtle indication of the prevalence of this job holding for it takes account of individuals with many jobs instead of simply throwing them into the same category as those with one such job. These results are presented in the third and fourth columns of Table 1. The new figures again show that whites held about twice as many of these jobs as blacks when educational attainment at entry was held constant. The ratio rises to approximately three to one for college graduates, whites with this much education held an average of 4.68 full-time jobs before entry, compared to an average of 1.68 jobs for blacks. High school graduates held an average of only one fourth as many jobs as college graduates, while those entering with no high school averaged only .13 jobs before entry for whites, half that number for blacks.

If the men are now classified according to their ages at entry, patterns very similar to those above are found. These results are found in Table 2. Controlling on age at entry, twice as large a proportion of whites as blacks had one or more full-time jobs before entry. Within each of the age categories, whites averaged two to three times more jobs than blacks. The averages within the age categories varied from 0.13 jobs for those entering at age fifteen or before (for whites...for blacks the statistic was .03 jobs), to 0.71 for those entering at age 17 (0.32 for blacks), to a mean of 3.19 for whites entering at age 19 or later (1.24 for blacks).

TABLE 1

NUMBERS OF JOBS HELD BEFORE ENTRY BY EDUCATIONAL ATTAINMENT AT ENTRY AND RACE

Educational Attainment at Entry	% Holding One or More Jobs		Average Number of Jobs Held	
	Whites	Blacks	Whites	Blacks
No High School	7.6% (132)	3.8% (184)	.13	.07
Some High School	20.7 (179)	10.8 (260)	.46	.23
High School Grad	38.4 (365)	18.6 (221)	1.08	.58
Some College	66.3 (83)	35.7 (48)	2.39	1.08
College Grad	90.2 (91)	44.0 (25)	4.68	1.68
% of Variance			36.7%	8.7%
F for Regression			122.4	17.4

TABLE 2

NUMBERS OF FULL-TIME JOBS BEFORE ENTRY BY AGE AT ENTRY AND RACE

Age at Entry	% Holding One or More Jobs		Average Number of Jobs Held	
	Whites	Blacks	Whites	Blacks
15 or less	8.9% (146)	2.6% (193)	.13	.03
16	15.9 (107)	7.2 (111)	.34	.12
17	29.9 (204)	14.6 (158)	.71	.32
18	40.0 (170)	14.1 (128)	1.21	.33
19 or more	73.9 (222)	33.8 (148)	3.19	1.24
% of Variance			29.3%	12.0%
F for regression			87.5	24.9

The patterns showed remarkable consistency for both blacks and whites, whether age at entry or educational attainment was taken as the independent variable. There seems little to choose between the two tables discussed so far. However the consistency of these tables is not necessarily an indication of the predictive power of the variables in question. Only analysis of variance or regression techniques can generate estimates of the predictive abilities of these two variables. These dummy variable regressions were performed and the multiple r-squares and "F" statistics are shown at the bottom lines of Tables 1 and 2. For both races and for both the educational attainment and age variables the regressions explained significant amounts of variance at the .001 level.

There was a very large difference in the variance estimate for whites and blacks: with educational attainment at entry as the independent variable we explained 36.7% of the variance in the number of full-time jobs before entry for whites, only 8.7% for blacks; age at entry explained 29.3% of the variance for whites, 12.0% for blacks. Thus, as has often been the case, the behavior of whites was very much more predictable than that of blacks. These eight dummy variables were inserted into a single regression equation in order to determine the relative magnitudes of the effects of the education and age variables.

For both races, the greater part of the variance could not be uniquely attributed to either one of these two variables but lay in the portion common to both. Age and education together accounted for 38.7% of the variance for whites, only 12.9% for blacks. Of the total for whites, educational attainment uniquely accounted for 9.4%, age at entry uniquely accounted for 2.0%, and the remaining 27.3% could not be attributed to either variable. Of the total of 12.9% of the variance found for blacks, 4.3% was uniquely attributable to age at entry, an additional 0.9% to education and 7.7% could not be assigned to either uniquely. Adding in the sixteen possible interaction terms boosted the variance by only negligible amounts, for either race. The exact results are in Table 3. We thus have a clear indication that education is of significantly more importance to whites, while age at entry is more important to blacks, in the prediction of the number of full-time jobs held before entry. The correlation between age and education is somewhat higher for whites than blacks and this accounts for the larger proportion of the total whites' variance lying in the common portion than of the blacks' total.

Finally we might ask if the family background of the respondent had any significant impact on the numbers of full-time jobs held before entry. It is the individuals from homes of higher social class that are more likely to obtain more education before entry, so the expected direction of this relationship would show a positive association between social class of the family of origin and the number of jobs held before entry. This is indeed the case and we find that the four

TABLE 3

REGRESSION OF EDUCATIONAL ATTAINMENT AT ENTRY AND AGE AT ENTRY ON THE NUMBER OF FULL-TIME JOBS HELD BEFORE ENTRY, BY RACE

		Variances in Percent	
		Whites	Blacks
Zero-order effects:	Education	36.7%*	8.6%*
	Age	29.3*	12.0*
Unique Effects:	Education	9.4*	0.9
	Age	2.0*	4.3*
	Overlap	27.3*	7.7*
Total Without Interaction		38.7*	12.9*
Unique Interaction Variance		0.6	1.3
Total Variance With Interaction		39.3*	14.2*
		Regression Coefficients	
Education:	Some High School	.102	.026
	High School Graduation	.337	.186
	Some College	1.118*	.348
	College Graduation	3.291*	.727**
Age at entry:			
	16	.114	.048
	17	.341	.200
	18	.737*	.177
	19 or more	1.402*	.923*
Regression Constant		.065	.021

Base categories are "no high school", and "age 15 or less"

*Significantly different from zero at .01 level of significance, using F tests on the variances and "t" tests on the regression coefficients.

**Same as above but significant only at the .05 level.

background variables accounted for 10.8% of the variance in the number of jobs for whites, but only 1.1% for blacks. Increasing education of either parent, increasing father's occupational prestige and decreasing number of siblings were associated with larger numbers of these full-time jobs.

At the zero-order level the family background variables had considerable impact on the numbers of jobs held by whites, accounting for around ten percent of the variance but almost none for blacks. These four variables were then inserted into the regression with the education and age dummy variable. For both races the unique contribution of the four variables was statistically and substantively insignificant--0.5% of the variance for whites and 0.6% for blacks. In path analytic terms, the tremendous difference between the zero-order and unique variances of the family background variables for whites indicates that almost all of the effect of family background is "indirect" that is it is channeled through the age and education variables. For whites, the partitioning of the variance into three unique contributions and four overlapping portions of variance was very different from the division made for blacks. The partitioning of the variance appears as Table 4.

The unique contributions of the family background variables were very small and those of education and age at entry were very close to their values in the regression involving only age and education (see Table 3). Interesting race differences appeared in the higher order partitions. For whites, 8.9% of the

TABLE 4

REGRESSION OF THE NUMBER OF FULL-TIME JOBS HELD BEFORE ENTRY ON EDUCATIONAL ATTAINMENT AT ENTRY AND AGE AT ENTRY, BY RACE

	Unique Variance	
	Whites	Blacks
Unique Attributable to: Family Background variables	.48%	0.57%
Educational attainment at entry	8.02	1.04
Age at entry	2.09	3.90
Common to: Family background and education at entry	1.44	-.15
Family background and age at entry	-.03	0.40
Education at entry and age at entry	18.29	7.42
Common to all three variables	8.90	0.26
Total variance explained	39.19%	13.44%
Variance required for set of 4 variables* to be significant at the: .05 level	1.10%	1.27%
.01 level	1.54	1.77
For 1 variable: .05 level	.45%	.51%
.01 level	.77	.89

*Each set of variables above has four separate variables included in it.

variance lay at the intersection of the effects of the three variables, compared to a corresponding value of only 0.3% for blacks. Thus there was a great deal more multicolinearity in the three variables for whites than was the case for blacks. In both equations the largest part of the variance was still the part common to educational attainment and age at entry which accounted for 18.3% for whites and 7.4% for blacks.

The average durations of these jobs showed little variation across educational attainment, aside from a slight tendency for men with less education to have longer average job durations before entry. Also blacks tended to have had somewhat higher job durations than whites. Of the respondents with one or more full-time jobs before entry, 17.0% of the whites and 12.5% of the blacks had average durations of less than three months. The peak occurred for average durations of exactly three months, the usual length of a summer vacation. This category contained 55.2% of the whites and 48.1% of the blacks.

More of the blacks than whites had average durations exceeding three months, the normal length of a summer vacation. We find that 16.7% of the whites had average durations above three months and below six months and 11.1% had average durations euqal to or exceeding six months--the corresponding figures for blacks were 9.6% and 28.9%. Thus more of the blacks held full-time jobs while simultaneously engaged in full-time schooling. Around sixty of the sixteen-hundred men in the sample had average durations above six months. In half of these cases the average duration was above a year.

It is not clear how to proceed at this point. The two possibilities are to discuss the quality of these full-time jobs before entry or to go on to describe the occurrence of part-time jobs before entry. The latter path seems the most reasonable in that it allows us to deal with the similarities and differences between these two forms of pre-entry job holding before elaborating the quality of the jobs. So we now turn to a discussion of the numbers of part-time jobs before entry.

Numbers of Part-Time Jobs Before Entry

Two obvious and basic questions confront us now. The first is simply the one answered in the previous section with respect to full-time jobs--what are the relationships between social class of the respondent's family and his age and educational attainment at entry and the numbers of part-time jobs experiences he has before entry? Secondly we must consider how these part-time jobs fit in with the numbers of full-time jobs held before entry. The first of these is answered by means of the presentation of a set of tables paralleling the analysis that was carried out above for full-time jobs. A rather simple analysis tells us a fair amount about the latter question and we deal with it first.

The simple correlation between the number of full-time jobs and the number of part-time jobs held before entry was 0.391 for whites and 0.383 for blacks. This is a fairly large correlation, but is not really a valid measure of the relationship between these two kinds of jobs holding. Both the number of full-time and part-time jobs (the latter will be shown below) are strongly related to age at entry, educational attainment at entry, and to family background variables. Thus it may be that the correlations here are spurious ones, artifacts of the relationships between the two measures of job-holding and other variables. Partial correlation coefficients were generated between the number of full-time and the number of part-time jobs held before entry, with the three sets of variables being controlled separately and in all possible combinations. After education and age at entry had been inserted as controls, the "partial r" did not change after the background variables had been inserted in addition to these. So we make no further mention of the background variables.

For whites the simple correlation between the two variables dropped from 0.391 to .235 with educational attainment used as a control, to .344 for age at entry as a control, and to .234 with age and education used together. For blacks the zero-order correlation of .383 dropped to .339 partialling on education, to .313 partialling on age at entry, and to .312 partialling on the two of them. There is thus a considerably stronger relationship between the numbers of full-time and part-time jobs before entry for blacks than there is for whites, if the important factors that contribute to the spuriousness of the correlation are partialled out. Assuming the relationship varies approximately as the square of the partial correlation coefficient, the effect is about twice as large for whites as for blacks. Both are statistically significant at very high levels.

Overall, rather higher proportions of the men had part-time jobs than had full-time jobs before entry--46.4% of the whites had one or more part-time jobs before entry, versus the 38.1% who had a full-time job in this period. This is also true for blacks, where 24.9% had at least one part-time job, compared to the 14.1% with one or more full-time jobs before entry. Of those individuals with one or more part-time jobs, 54.3% of the whites and only 38.6% of the blacks had more than one such job.

In Table 5 the proportions of individuals in each educational attainment category with one or more part-time jobs before entry and the average number of jobs held by the respondents in each group are tabulated. The proportions of those holding these jobs varied from 17.5% for the group with no high school up to 66.0% among college graduates for whites. The range was rather narrower than that found for full-time jobs. For blacks the range was from 8.7% of the respondents with no high school to 60.0% of the college graduates that held one or more part-time jobs before entry. The proportion of men with at least one part-time job did not increase uniformly with education at entry. Among the blacks, approximately thirty percent of the respondents that entered the labour force with some high school, high school graduation or some college had part-time jobs before entry. For

TABLE 5

NUMBERS OF PART-TIME JOBS HELD BEFORE ENTRY BY EDUCATIONAL ATTAINMENT AT ENTRY AND RACE

Educational Attainment at Entry	% Holding One or More Jobs		Average Number of Jobs Held	
	Whites	Blacks	Whites	Blacks
No High School	17.5% (132)	8.7% (184)	.21	.11
Some High School	38.0 (179)	24.7 (260)	.65	.36
High School Grad	51.8 (365)	34.0 (221)	1.22	.76
Some College	66.3 (83)	27.1 (48)	1.48	0.75
College Grad.	66.0 (91)	60.0 (25)	1.73	1.12
% of Variance			14.1%	6.3%
F for Regression			34.8	12.3

whites there was a uniform increase in the proportion of men with one or more jobs before entry as education at entry grew, though there was no difference between men with some college and college graduates.

The average numbers of jobs held increased uniformly with educational attainment at entry--rising from an average of 0.11 job for blacks with no high school (0.21 for whites with this much schooling) to 1.12 jobs for college graduates (1.73 for whites). While educational attainment was significantly related to the numbers of these jobs, there was a great deal of variation about the predictions of this variable from education. Educational attainment accounted for only 14.1% of the variance for whites, 6.1% for blacks. This is not nearly as high a level of prediction as was found using the numbers of full-time jobs as the dependent variable.

While age at entry was little better than education as a predictor of the numbers of part-time jobs held before entry, there were very uniform increases in the average numbers of these jobs held with increasing age at entry. The data are presented in Table 6. For individuals entering at age 15 or before, 19.2% of the whites and 11.9% of the blacks had at least one such job. The proportion rose to a maximum of 59.4% for whites entering at age 19 or more and to 42.6% for blacks entering at this age. Individuals in this latter group

TABLE 6

NUMBERS OF PART-TIME JOBS HELD BEFORE ENTRY BY AGE AT ENTRY AND RACE

Age at Entry	% Holding One or More Jobs		Average Number of Jobs Held	
	Whites	Blacks	Whites	Blacks
15 or Less	19.2% (146)	11.9% (193)	.23	.15
16	39.3 (107)	16.2 (111)	.65	.24
17	46.6 (204)	24.0 (158)	.98	.39
18	54.7 (170)	31.2 (128)	1.41	.59
19 or More	59.4 (222)	42.6 (148)	1.88	1.05
% of Variance			10.0%	8.1%
F For Regression			23.5	16.2

average 1.88 jobs each for whites, 1.05 for blacks. The largest differences between part-time and full-time job holding occurred for well educated whites and for whites entering when they were older--here full-time job holding before entry was more frequent than was part-time job holding during this period. Age at entry explained 10.0% of the variance in the number of part-time jobs held before entry for whites, 8.1% for blacks.

Again a dummy variable regression was performed with the educational attainment and age at entry variables entered in the form of dummy variables. The results are rather similar to those obtained for full-time jobs and are shown in Table 7. Age and education were responsible for 14.8% of the variance for whites, 9.3% for blacks. Again more of the unique variance was attributable to educational attainment for whites, and more of the variance for blacks was attributable to age at entry. Among both races largest portions lay at the intersection of the two variables, 9.3% of the total of 14.8% for whites, 5.3% for blacks. Little more variance was explained by the addition of the sixteen possible interaction variables.

The addition of family background variables did little to improve the level of prediction. They added a unique 0.9% to the total variance for whites, 0.6% for blacks. Again the variance common to all three of the variable clusters (family background educational attainment dummy variables, and age at entry dummy variables) was much larger for whites than for blacks, amounting to 3.2% in the former case, only 1.1% in the latter. With all

TABLE 7

REGRESSION OF THE NUMBER OF PART-TIME JOBS HELD BEFORE ENTRY ON EDUCATIONAL ATTAINMENT AT ENTRY AND AGE AT ENTRY, BY RACE

		Variances in Percent	
		Whites	Blacks
Zero-order effects:	Education	14.1%*	6.5%*
	Age	10.0*	8.1*
Unique effects:	Education	4.8*	1.2
	Age	0.7	2.8*
	Overlap	9.3*	5.3*
Total Without Interaction		14.8*	9.3*
Unique Interaction Variance		0.5	2.6
Total Variance with Interaction		15.3*	11.9*
		Regression Coefficients	
Education:	Some High School	.230	.171
	High School Graduation	.597**	.429*
	Some College	.887**	.148
	College Graduation	2.220*	.369
Age at entry:	16	.257	.002
	17	.342	.048
	18	.673**	.205
	19 or More	.421	.667*
Regression Constant		.141	.028

Base categories are "no high school", and "age 15 or less".

*Significantly different from zero at .01 level of significance, using F tests on the variances and "t" tests on the regression coefficients.

**Same as above but significant only at the .05 level.

these variables the largest proportion of the variable lay in the intersection of the educational attainment and age at entry variables--6.1% of the total of 15.7% for whites and 4.1% of the total of 9.9% for blacks.

Again the pattern was very similar to that found for full-time jobs in this period, though the total variance explained was very much lower.

There was far less uniformity in the durations of part-time jobs before entry than was found among full-time jobs in this period. This was clearly due to the lack of restriction, for most individuals, in the durations of these jobs. Part-time jobs could be held throughout the school year and this resulted in longer average durations for these jobs. In comparison, most of the full-time duration averages were four months or less. These durations are presented in Table 8 with education at entry and race controlled. With each race x education category between twenty and forty percent of the duration averages were over twelve months. The longest durations were found among high school graduates, the shortest among men with no high school with college graduates somewhere in between. This pattern held for both blacks and whites, though the average durations were longer for blacks. The category with the longest average duration, high school graduation, averaged 21.1 months for whites, 16.7 months for blacks. Furthermore the durations' range was larger for blacks--ranging from 15.0 months to 21.1 months in comparison to the range from 13.3 months to 16.7 months for whites.

TABLE 8

AVERAGE DURATIONS OF PART-TIME JOBS BEFORE ENTRY BY EDUCATIONAL ATTAINMENT AT ENTRY, BY RACE

	Average Duration in Months	No High School	Some High School	High School Grad.	Some College	College Graduation
WHITES	0.1-6	43.4%	27.9%	25.4%	20.0%	21.6%
	6.1-12	13.1	32.3	29.1	40.0	38.4
	12.1-24	30.4	23.5	22.3	21.8	18.4
	24.1 or More	13.1	16.3	23.2	18.2	21.6
	AVERAGE	13.3 (23)	14.1 (68)	16.7 (189)	15.2 (55)	14.7 (60)
BLACKS	0.1-6	25.0%	20.3%	15.9%	38.4%	20.0%
	6.1-12	37.5	23.4	22.7	30.8	13.3
	12.1-24	25.0	28.1	25.7	15.4	40.0
	24.1 or More	12.5	22.2	36.1	15.4	26.7
	AVERAGE	15.0 (16)	21.1 (64)	23.4 (75)	15.1 (13)	19.5 (15)

It is clear that this pattern of durations does a great deal to distinguish these jobs from full-time jobs held in the same period. This is likely the cause of the small amount of variance in the numbers of jobs held than we were able to explain with age at entry and educational attainment. The number of part-time jobs held is a poor indicator of the total time spent on the job, this due to the tremendous range in the durations of the pre-entry part-time jobs. We now move from this discussion of the occurrence and duration of pre-entry jobs and turn to an examination of their quality.

The Quality of Full-Time Jobs Held Before Entry

The analysis of the quality of full-time jobs involves two dependent variables, the average time-weighted occupational prestige scores and wages of these jobs. The relatively small numbers of individuals having even one such job (only 104 of the blacks) render the results obtained here a good deal less reliable than those above. The variance estimates obtained and the regression coefficients seldom reach even the .05 level of significance. Furthermore, no alternate means of analysis does anything to help; the uncertainty of this part of the analysis cannot be eliminated. This caveat stated, we proceed.

There are four main factors of interest to us, the family background variables, age at entry, educational attainment at entry, and the number of full-time jobs held before entry. The first three of these have been used in the discussion of the determinants of the numbers of full-time jobs held before entry. The relationship between the wage and occupational prestige averages for these pre-entry jobs was a very weak one, for whites the simple correlation was only 0.106, for blacks it was 0.121--and this is without any statistical control on the variables that might cause a spurious correlation between prestige and wages. Thus the occupational prestige and wage averages should be seen as independent of one another.

In Table 9, the average occupational prestige scores and wages for each of the five educational attainment groups are tabulated for whites and blacks. The prestige scores were quite low and their range was very restricted. For whites, the lowest average was for individuals with no high schooling on entry, 20.7 points and ranged upward only to 30.9 points for college graduates. In contrast the prestige scores of the whites' first job after entry averaged 22.7 points for men with no high school up to 46.0 for college graduates. The same pattern appeared for blacks, only more so! The pre-entry jobs of blacks entering with no high school averaged only 18.9 prestige points increasing only to 23.9 points for black college graduates (compared to equivalent limits of 21.4 points and 38.5 for their first jobs after entry). It is clear that there is a big increase in the black-white differences in the quality of pre-entry jobs as educational attainment increases. For men entering with no high school only 1.8 prestige points

TABLE 9

AVERAGE OCCUPATIONAL PRESTIGE AND WAGE OF FULL-TIME JOBS HELD BEFORE ENTRY INTO THE LABOUR FORCE BY EDUCATIONAL ATTAINMENT AT ENTRY AND RACE

Educational Attainment at Entry	Average Occupational Prestige		Average Wage (in dollars/month)	
	Whites	Blacks	Whites	Blacks
No High School	20.7 (10)	18.9 (7)	$125 (8)	$130 (5)
Some High School	23.1 (37)	21.4 (28)	189 (33)	170 (26)
High School Grad.	22.9 (139)	21.1 (41)	190 (125)	164 (37)
Some College	26.2 (55)	24.6 (17)	217 (53)	209 (16)
College Grad.	30.9 (82)	23.9 (11)	236 (80)	230 (11)
Variance for Regression	13.9%	5.1%	4.4%	6.7%
F for Regression	21.85**	1.34*	3.35**	1.61*
Total Cases	323	104	299	95

*Not statistically significant at .05.

**Significant at .005.

separated the whites and blacks, for college graduates the gap had widened to a full seven points. Thus blacks with more education were relatively worse off compared to whites.

The reason for the limited range of prestige averages lies in the manner in which they were computed. All the full-time jobs before entry were included in the average, so that for a college graduate the average is as much a function of the low prestige scores of the summer jobs he held while in high school as it is of the better jobs he may have found while in college. However, it is clear that the extremely low quality of the jobs black college graduates have had, as compared to whites who enter with this level of education, cannot be simply regarded as an artifact of the manner in which the scale was constructed. While the average prestige scores of these jobs for whites ranged from those of truck drivers up to the level of skilled workers, those for blacks range from the level of unskilled laborers only up to that of low level factory operatives. It is clear that blacks get poorer quality, as well as fewer, jobs during this pre-entry period.

For both races there was a strong positive relationship between the prestige scores of the first jobs obtained after entry and of the average scores for the full-time jobs held before entry. The relationship is stronger for whites where the correlation coefficient is 0.476 than for blacks where it is only .346. Educational attainment at entry has far less impact on the pre-entry averages than on the first job. Education accounts for only 13.9% of the variance in the white prestige averages and a mere (and statistically insignificant) 5.1% for blacks.

It might be argued that the distribution of the individuals with one or more full-time job before entry tends to selectively exclude individuals in the lower range of education at entry and so the use of these five educational attainment categories does not adequately separate individuals at the higher levels of education, and that this means that the explained variance will be lowered. This does not seem to be the case. If the simple regression coefficients are calculated between the prestige averages and education, with the latter used as a continuous variable (scored zero to ten), we find that virtually the same results are obtained. This lowered ability to explain pre-entry full-time job prestige is not the result of deficiencies in the variables used but appeared to reflect a real decrease in the explanatory power of the education variables.

The above analysis was repeated with age at entry, in the five categories used previously, as the independent variable. The results were extremely unsystematic. For both whites and blacks there was a small trend for individuals entering at later ages to have had higher prestige jobs before entry, but the age variable only accounted for 6.5% of the variance for whites, 8.3% for blacks. The latter relationship was statistically insignificant at the .05 level. The insertion of both the age at entry and educational attainment variables yielded a rather predictable result: for whites education was more important, its unique contribution was 7.9% versus only 0.5% unique variance for age; for blacks age was the most important variable, uniquely accounting for 7.2% of the variance as opposed to only 3.4% for education. Again the scores for whites were more predictable than for blacks, the age and education variables accounting for 14.4% of the variance in the whites case, only 11.7% for blacks. There was more overlapping variance for whites, as was the case when the number of these jobs was used as the dependent variable.

Finally, the two variables above, the family background variables and the number of full-time jobs held before entry were entered into the regression equation, the results of which constitute Table 10. Very close to the same amounts of variance were explained for whites and for blacks--17.9% in the former case, 18.9% in the latter. A number of surprises are found in examining the results of this calculation. The impact of the family background variables was small for whites where it adds a unique 1.1% of the variance but very large, 6.1% uniquely, for blacks.

As was suggested by the previous run regressions, the impact of the educational attainment variables is large for whites, 7.1% uniquely, and very small, less than a fourth of that value for blacks. Controlling on all the other variables,

TABLE 10

REGRESSION OF THE AVERAGE OCCUPATIONAL PRESTIGE SCORE OF THE FULL-TIME JOBS BEFORE ENTRY, FAMILY BACKGROUND VARIABLES, EDUCATIONAL ATTAINMENT AT ENTRY, NUMBER OF FULL-TIME JOBS BEFORE ENTRY, AND AGE AT ENTRY, BY RACE. ONLY INDIVIDUALS WITH AT LEAST ONE FULL-TIME JOB BEFORE ENTRY ARE INCLUDED IN THE REGRESSION.

	Regression Coefficients		Standardized Regression Coefficients		UNIQUE VARIANCE			
	Whites	Blacks	Whites	Blacks	Whites		Blacks	
Father's education	.221	.221	.053	.047	.15%)	1.06%	.12%)	6.13%
Mother's education	.132	.872	.024	.199	.04)		1.86)	
Number of siblings	-.236	.199	-.064	.100	.38)		.80)	
Father's Occ. Prs.	.018	.053	.024	.092	.04)		.63)	
Some High School	1.75	.60	.059	.038	.07)	7.12	.03)	1.74
High School Grad.	.80	-.66	.042	-.047	.01)		.04)	
Some College	4.40	2.52	.175	.135	.37)		.41)	
College Grad.	10.03*	2.26	.465	.099	1.83)		.25)	
Number of Jobs	-.810*	-4.73	-.193	-.143	2.71		1.52	
Age at Entry: 16	-.67	-1.37	-.020	-.052	.02)	.34	.11)	4.96
17	1.40	-1.99	.059	-.118	.07)		.30)	
18	2.12	3.03	.094	.167	.16)		.63)	
19+	1.58	.48	.085	.035	.08)		.02)	
Regression Const.	21.8	17.5						
Total Variance						17.92%		18.93%
Number of Cases	324	104						

*Significantly different from zero at the .05 level.

graduation from college raises the whites' average prestige by ten points, the blacks by only 2.3 prestige points. The number of jobs held before entry has a negative effect on the prestige average, for both races--individuals lose four-fifths of a point on the prestige average for each such job if they are whites, just over half that amount if they are black. Age at entry had a negligible effect on whites' scores, though the effects were in the predicted direction. For blacks, however, they uniquely account for 5.0% of the variance, though the pattern of their contributions were very erratic and undoubtedly reflected the effect of the educational attainment control. The regression constant was, as might be expected, larger for whites than for blacks, 21.8 points versus 17.5 points.

There seems almost an inverse correlation between the importance of different clusters of variables for blacks and whites. Family background had considerable impact on the prestige averages for blacks, almost none for whites. Age at entry acts in this same fashion. Educational attainment at entry was important for whites but not for blacks. The pattern is quite similar to that obtained with the number of these full-time jobs as the dependent variable, though in this case the effect of family background variable was insignificant for blacks as well as for whites. We now pass to an examination of the average wages of these jobs.

The average wages for full-time jobs held before entry are listed in Table 9. The race differences were not large and for both blacks and whites there was a steady increase in the value of this wage average from around $125 a month for individuals with no high schooling up to around $230 for those who enter with college degrees. What is more important is the small amount of variance explained by the educational attainment variable. Education explained only 6.7% of the variance in the wage average for blacks, and even less, 4.4% for whites. While there was a real regularity to the averages there was a great deal of variation about these means. The data are relatively poor--only 299 useable cases for whites and 95 for blacks.

The relationship between these wage averages and age at entry is relatively easily described: for whites the wage average increased quite steadily from $119 per month to $225 as we moved from those who entered at age 15 or before to the group entering at age 19 or beyond. For blacks there was relatively little difference between those entering before age 16 and those entering at age 16 and 17--all had wage averages in the range $130 to $140 per month. Blacks with some college had a wage average for full-time jobs before entry of $183 while college graduates averaged $204 per month. Age at entry accounted for 9.0% of the variance in wage for blacks and somewhat less, 6.6% for whites. The two variables together accounted for 7.8% in the case of whites, 12.2% for blacks. The total variances rose by 1.5% for whites and 2.2% for blacks when the interaction terms are inserted (this additional group of terms did not make a significant contribution). In this case we find that the blacks' behavior is better explained by the variables used than is the whites! For both races educational attainment at entry is less important than age at entry in explaining these wage averages.

Once more a regression was performed which included the family background variables, and the number of full-time jobs before entry in the independent variables, in addition to the age and education dummy variables used above. The regression, as described in detail in Table 11, is entirely predictable for whites. Age at entry makes the only large contribution to the wage average, accounting uniquely for a third of the 8.9% total variance explained. The contributions of educational attainment at entry, family background variables and the number of jobs held before entry had very little impact for whites.

The regression for blacks was astonishing--thirty percent of the wages' variance was explained by the equation, and 13.6% was uniquely attributable to the family background variables. Age at entry accounted for another 6.8% and education for 2.8% more. The number of jobs held made a unique contribution of 3.6% of the variance. The coefficients were even more interesting. Mother's education was the single strongest variable accounting for about a third of the total variance

TABLE 11

REGRESSION OF THE AVERAGE WAGE OF FULL-TIME JOBS BEFORE ENTRY ON FAMILY BACKGROUND VARIABLES, EDUCATIONAL ATTAINMENT AT ENTRY, THE NUMBER OF FULL-TIME JOBS BEFORE ENTRY, AND AGE AT ENTRY, BY RACE. ONLY INDIVIDUALS WITH AT LEAST ONE FULL-TIME JOB BEFORE ENTRY ARE INCLUDED IN THE REGRESSION.

	Regression Coefficients		Standardized Regression Coefficients		UNIQUE VARIANCE			
	Whites	Blacks	Whites	Blacks	Whites		Blacks	
Father's education	-2.20	-4.08	-0.043	-0.061	.10%)	.57%	.19%)	13.63%
Mother's education	6.08	28.8*	.091	.459	.52)		9.91)	
Number of siblings	- .522	1.75	-0.012	.062	.01)		.30)	
Father's Occ. Prs.	- .020	-0.560	-.002	-.068	.00)		.34)	
Some High School	9.2	-30.1	.025	-.135	.01)	.71	.42)	2.83
High School Grad.	-23.7	-64.9	-.102	-.324	.09)		1.67)	
Some College	-13.6	-36.6	-.044	-.138	.02)		.43)	
College Grad.	-7.3	-44.6	-.027	-.089	.01)		.47)	
Number of Jobs	4.44	-10.4**	.087	-.220	.55		3.60	
Age at Entry: 16	-31.2	-33.5	-.074	-.089	.34)	3.03	.32)	6.81
17	43.4	- 4.6	.149	-.019	.47)		.01)	
18	64.7	33.7	.233	.130	1.02)		.38)	
19+	70.5	71.9	.309	.366	1.07)		1.68)	
Regression Const.	136.2	162.0						
Total Variance						8.91 %		30.00 %
Number of Cases	299	95						

*Significantly different from zero at the .05 level.

explained. Entering at a later age added to the wage average but each of the educational attainment dummy variables lowered the average wage. Larger numbers of these jobs before entry lowered the average wage measure. Unfortunately the small numbers of cases in this regression throw some of these conclusions into doubt, the basic results are clearly correct: family background is very important for blacks, and that wage also is important and that the number of jobs has a negative effect.

We finally turn to the one remaining set of unexplored variables, those describing the quality of the part-time jobs held before entry. These investigations will be made in the context of the results of this section and in the context of the factors that serve to increase the numbers of part-time jobs held.

The Quality of Part-Time Jobs Before Entry

The part-time jobs before entry bear a number of similarities and a number of dissimilarities to the full-time jobs held in this period. The means of these occupational prestige and wage averages for each of the five educational attainment groups are presented in Table 12. For whites the prestige averages show a fairly steady increase with education at entry: the no high school and some high school groups had a mean around 20.5 points, the high school graduates and those with some college were both around 23 points, and the college graduates' mean was 29.1. As

TABLE 12

AVERAGE OCCUPATIONAL PRESTIGE AND AVERAGE WAGE OF PART-TIME JOBS BEFORE ENTRY, BY EDUCATIONAL ATTAINMENT AT ENTRY AND RACE

	Mean of the Prestige Averages		Mean of the Wage Averages	
	Whites	Blacks	Whites	Blacks
No High School	21.4 (23)	18.9 (16)	118.5 (19)	99.8 (11)
Some High School	20.0 (67)	20.9 (63)	83.8 (56)	106.7 (50)
High School Grad.	23.0 (186)	19.9 (75)	79.8 (164)	89.9 (67)
Some College	23.4 (55)	18.8 (13)	79.3 (50)	94.8 (13)
College Grad.	29.1 (60)	27.1 (15)	97.5 (56)	129.7 (15)
Variance	10.03%	8.48%	1.74%	2.69%
F Ratio	10.76	4.09	1.51	1.04
Number of Cases	391	182	345	156

was the case for whites' full-time pre-entry jobs, college graduates did considerably better than all of the other groups. For blacks much the same pattern occurs, black college graduates averaged 27.1 prestige points while the four lessor educational attainment categories had no significant difference among them, all of these averaging around twenty points. The educational attainment categorization accounts for 10.0% of the variance in the prestige averages for whites, 8.5% for blacks. Both these regressions were significant at the .01 level.

The wage averages of these jobs showed essentially no pattern at all when the means for each of the five education categories were calculated--regression estimates of the variance were only 1.7% for whites, 2.7% for blacks (neither of which was significantly different from zero). This is not altogether counterintuitive. Let us compare these results to those found for full-time jobs. For whites with some college, the average for the full-time jobs was $217 per month. The same group averaged only $79 per month in their part-time jobs. This simply reflects the fact that there was a tremendous amount of variation in the hours worked, and that the variation was unsystematic, for part-time jobs.

An attempt to look at these averages in terms of the age at entry was fruitless--the patterns resulting appeared to be quite random, with the one exception of whites' average prestige scores, where age at entry accounted for 4.5% ot the variance. The results are uninteresting and are not presented here.

Tabulations of the average prestige scores and wages for full-time jobs before entry are in Table 9 of this chapter. The prestige means were very much comparable to the results found for full-time pre-entry jobs while the wage averages were considerably smaller among the part-time jobs--the difference increasing with educational attainment. Regressing these average prestige variables on both educational attainment and age at entry variables it was found that, for both races, the largest contribution was the unique one due to education, followed by the portion common to the age and education variables, followed by the unique effect of the age variables.

In Table 13, we present the results of regressing the prestige averages on age at entry, educational attainment at entry, the number of part-time jobs held before entry, and the family background variables. There is a marked dissimilarity between the results obtained for full-time pre-entry prestige averages (see Table 11) and the ones found here. Similar amounts of variance in the part-time prestige averages were explained for whites and blacks, 13.5% and 11.8% respectively. The small numbers of cases involved make it virtually impossible to present statistically supportable assertions about the equations presented, even at the .05 level of significance.

The family background variables did not play a large part in determining the prestige averages for either blacks or whites. The four variables in this cluster accounted for around two per-

TABLE 13

REGRESSION OF THE AVERAGE OCCUPATIONAL PRESTIGE SCORE OF THE PART-TIME JOBS BEFORE ENTRY ON FAMILY BACKGROUND VARIABLES, EDUCATIONAL ATTAINMENT AT ENTRY, NUMBER OF PART-TIME JOBS BEFORE ENTRY, AND AGE AT ENTRY, BY RACE. ONLY INDIVIDUALS WITH AT LEAST ONE PART-TIME JOB BEFORE ENTRY ARE INCLUDED IN THE REGRESSION

	Regression Coefficients		Standardized Regression Coefficients		UNIQUE VARIANCE			
	Whites	Blacks	Whites	Blacks	Whites		Blacks	
Father's education	.413	.366	.094	.087	.49%)	2.38%	.36%)	1.73%
Mother's education	-.590	.233	-.111	.052	.79)		.12)	
Number of siblings	.162	-.126	.048	-.064	.20)		.34)	
Father's Occ. Prs.	.085*	-.056	.118	-.095	1.00)		.67)	
Some High School	-1.42	1.63	-.060	.104	.10)	2.71	.23)	4.89
High School Grad.	.69	1.32	.040	.088	.02)		.13)	
Some College	1.55	.12	.061	.004	.07)		.00)	
College Grad.	6.04	7.74*	.242	.284	.85)		2.54)	
Number of Jobs	.601*	-.248	.138	-.054	1.57		.25	
Age at Entry: 16	.36	.97	.001	.038	.00)	.06	.07)	1.64
17	3.68	-2.34	.018	-.127	.01)		.55)	
18	2.36	-1.95	.012	-.109	.00)		.36)	
19+	-3.54	-1.15	-.019	-.074	.00)		.12)	
Regression Const.	17.48	21.40						
Total Variance						13.50%		11.78%
Number of Cases	395	184						

*Significantly different from zero at the .05 level.

cent of the variance, uniquely. The most important factor, accounting for 2.7% of the variance for whites and 4.9% for blacks was educational attainment. Only one of the educational attainment coefficients, that for college graduation, was large For whites it was 6.0 prestige points, for blacks it had the value of 7.7 points. The whites with more of these part-time jobs before entry tended to have better jobs, controlling on the other factors men gained an average of about .6 prestige points in the average for each such job held. For blacks there was no such effect. Even with the educational attainment at entry controlled, the age of entry had some effect on the prestige average, for blacks only though. Blacks entering later tended to have poorer jobs than those entering at early ages when the effect of education was removed. What is perhaps most interesting about this regression is the lack of race differences in the results, a finding that was not true of the quality measures for the full-time jobs in this period.

A regression of the same variables on the average wage of the part-time jobs revealed little of interest except in the case of blacks. It was found that family background variables, especially the number of siblings variable and his father's occupational prestige (the latter had a negative effect and the former a positive one!) had a strong effect on the average wage.

Summary

Let us first attempt to list the conclusions of this investigation.

1. Whites have more job experiences, both of the part-time and full-time variety in the period before entry.
2. Age at entry and family background seem to play the most important roles in determining the numbers of jobs held for blacks, while educational attainment at entry is more important to whites. There is a great deal less predictability in the numbers of these jobs for blacks than whites.
3. Blacks do not find as good jobs before entry as do whites if the occupational prestige of these jobs is used as a measure of quality, though there is virtually no difference in the white and black wage levels, controlling on respondents educational attainment at entry.
4. The above pattern holds for part-time as well as for full-time jobs.

It is clear that blacks are disadvantaged in their early labor market experiences. They seem primarily disadvantaged in finding jobs, secondarily, disadvantaged in the quality of the jobs, and quite on a par with whites in the wages of these jobs. It is interesting that age at entry and background variables play a more important part in finding these jobs and in determining these jobs for blacks than for whites, while the level of skill, at least as measured by educational attainment is of more importance to whites. This suggests that blacks are less able than whites, to put what they have learned to good use in part-time and full-time jobs held before entry. We turn now to a discussion of the impact of these measures of pre-entry job experiences and of other variables on the first two years of labor force behavior.

CHAPTER VI

A MULTIVARIATE ANALYSIS OF THE FIRST TWO YEARS

The two previous chapters of this analysis have been concerned with the occupational histories of the first two years after entry. The style of the analysis has focussed on the impact of single variables. In each case we have dealt first with the relationship between the variable and race and educational attainment at entry and second with the impact of all three on the quality of jobs held in the course of these two years, but without attempting to integrate all the variables or to construct a model of the processes taking place during this period.

Such is the objective of this chapter. We will first concentrate on the development of path models explaining the prestige values and wages of jobs during this period. In order to limit the diagramatic complexity of the path analyses, only a small number of variables will enter into this analysis. Four kinds of variables, family background variables, educational attainment, the numbers of jobs held before entry, and the prestige and wage indices of job quality will be included in the models. Separate path analyses will be constructed for whites and blacks and for the prestige scores and wages.

A second part of this discussion deals simultaneously with all the variables in the path analyses and in addition a number of characteristics of the first job including the industry of that job, the means used to locate it, etc. The number of variables is too large to allow the use of path analysis and so multiple regression techniques alone will be used for this part of the investigation. These large regressions will permit us to evaluate the importance of each of the variables, while statistically controlling for the effects of all the others. It will be possible to compare the variables and groups of variables to one another.

Educational Attainment at Entry

Educational attainment has so far been treated only as an independent variable. Many factors play a part in determining the level of education reached by an individual: the social class of the family in which he was raised, the community where he lived and the sort of schooling available, his intelligence, race. It is the social class factors that are of interest to us in building a stratification model and four of these are measured and available to us: the educational attainment of each parent, the number of siblings in the family of origin, and the occupational prestige score of the father. The education variables are both measured on a zero to ten scale, as described in Chapter 2.

In order to determine the impact of these variables on the educational attainment of the men as they entered the labour force a multiple regression was performed. The education of the respondent was also measured on the zero to ten scale. The regression is described in Table 1. The four variables together

TABLE 1

REGRESSION OF EDUCATION AT ENTRY ON FAMILY BACKGROUND VARIABLES, BY RACE

		Father's Education	Mother's Education	Number of Siblings	Father's Occupational Prestige
Regression Coefficient	WHITES	.184	.161	-.123	.0228
	BLACKS	.075	.264	-.056	.0142
Unique Variance (%)	WHITES	2.4%	1.4%	3.6%	1.8%
	BLACKS	0.3	3.3	1.9	0.9
Standardized Regression Coefficient (Direct Effect)	WHITES	.204	.151	-.200	.156
	BLACKS	.078*	.244	-.141	.108
Total Indirect Effect	WHITES	.218	.244	-.132	.210
	BLACKS	.250	.119	-.086	.138
Simple Correlation with Respondent's Education	WHITES	.422	.395	-.332	.366
	BLACKS	.328	.363	-.227	.246

*Not significantly different from zero at the .05 level.

explained 27.0% of the variance in whites' education but only 17.2% for blacks. Thus the pattern that held for wages and prestige scores in the first two years after entry where it was found that the parameters of whites are more easily predicted than those of blacks, extends back at least to the point at which educational attainment was defined. Blacks are less able to convert assets of their families into education than whites.

Three of the variables, both parents' education and the father's prestige score were positively related to educational attainment entry while the number of siblings was negatively related to the dependent variable. There were considerable differences in the magnitudes of these coefficients across race. Father's education uniquely explained 2.4% of the variance in whites education, a statistically insignificant 0.3% for blacks. On the other hand mother's education was a better predictor of blacks' education at entry uniquely explaining 3.3% of the variance, compared to 1.4% for whites. As might be expected, father's occupational prestige score explained more of the variance for whites, 1.8%, versus 0.9% for blacks. The last of the four variables was the number of siblings and it accounted for 3.6% of the whites' variance, 1.9% for blacks.

The relative magnitude of the regression coefficients varied approximately as the unique variances. White men gained one unit of education for every five and a half units of father's education or for each 6.2 units of mother's education. In contrast, blacks gained a unit for each 13.3 units of father's education and one for each 3.9 units of mother's education Each sibling cost a white man .123 units of education and a black man, 0.56 units. The regression constant, the baseline from which the predictions are made, was larger for whites than for blacks, 2.71 units of education versus 2.39 units. As the conventional wisdom suggests, the impact of the mother is far stronger in black than in white families (where the father is more important).

The total indirect effects of each of the variables can be obtained by subtracting the standardized regression coefficients (the direct effects) obtained in the regression from the correlations between the variables and educational attainment. The fourth and fifth rows of Table 1 show this calculation. A noteworthy finding emerges from these direct and indirect effects. For three of the variables, both parent's education and father's occupational prestige, the direct effect is smaller than the indirect effect, which reveals the high degree of multicolinearity among the three variables. For the fourth, the number of siblings, the direct effects are larger than the indirect ones. This pattern holds for both whites and blacks. Thus the number of siblings variable is less a part of the underlying factor that includes the other three variables. An inspection of the simple correlations among the four family background variables reveals that the correlations among the father's and mother's education and father's prestige variables were far larger than the correlations between the number of siblings and the three variables. A look at the partitioning of variance among the variables leads to the same conclusion.

The gap between the average white and black educational attainment levels was 0.82 units, 3.16 was the level for blacks, 3.98 for whites. Both of these averages fall between some high school (scored 3 units) and high school graduation (scored 4 units) though of course the difference is at a critical point. It is possible to break the difference between whites and blacks into two parts--one the result of their coming from homes of lower social class and the other due to the difference between the abilities of whites and blacks to convert the characteristics of the family they did come from into education for themselves. The first of these is simply the difference between the average values of whites' and blacks' family background variables while the latter is a consequence of the difference between the two sets of regression coefficients.

A substitution of the whites' family background averages into the blacks' equation results in a calculation of an average value of education for blacks of 3.59 units, 0.43 units above the black values. If the average values of blacks are used in the whites' equation, as would be the case if the social processes involved in the conversion of family background into education were the same for both races, we calculate an average value for blacks of 3.34 units of education, only 0.19 above the actual black value. The substitution of these values shows that the principal handicap of blacks appears to lie in the fact that they come from less middle class homes and not from differences in the way in which the conversion of these values takes place.

Path Analysis

Before translating the regression above and others into path analyses, it is necessary to lay down some rules under which the paths were derived. All the path analyses shown here include only paths for which the regression coefficients were statistically significant, using a sequential "F" test based on a forward selection procedure at the .05 level. Paths were deleted in an order based on the temporal distance spanned by the path. For example, if there are two paths, one between education at entry and the prestige of the first job and the other between the respondent's father's education and the prestige of the first job, it is the latter path that we attempt to delete first (by seeing if it makes a statistically significant contribution).

There is one stylistic point, the path diagrams when fully expanded span six points in time between the family background variables and the job held two years after entry. This means that a fully constructed path diagram would be of enormous complexity. For this reason the analysis has been separated into two parts and the diagrams have been physically broken down into two parts too. First we will deal with the events up to the first job after entry and then a second set of diagrams will include a detailed description of the variables from the first job and forward in time. The relationships between the separate exogamous variables will only be shown in the first set of diagrams.

An arbitrary simplification was introduced into the model, the four family background variables were treated as correlated exogenous variables. It is often conventional to path analyze these variables, so that father's education is taken to be the cause of father's occupational prestige. The number of siblings is usually treated as an exogenous variable though it is clearly possible to view father's education, mother's education, and father's occupational prestige as factors causing the number of siblings variable. These variables were used in the form of four correlated factors, without any attempt being made to introduce causal structuring. In view of the fact that our focus was on entry variables defined at a later point in time this device allows us to avoid the additional complexity of such an analysis.

It is also customary to view job wages as partly caused by the.occupational prestige score of the job held at each point. The path diagrams here do not include such paths as separate analyses of wages and prestige scores were carried out. At this early point in the men's occupational history, where significant and not necessarily related changes in the men's prestige scores were taking place, there appeared to be little justification in including this path. The simple correlations between occupational prestige and wage in this period were around 0.3. Taking the correlation between education and prestige as 0.55 and that between education and wage as 0.45 we find the partial correlation between prestige and wage to be only 0.075, controlling on education.

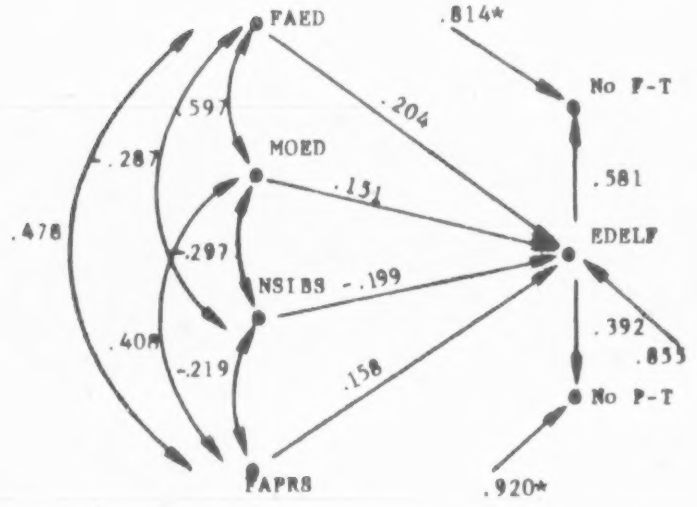
Two path diagrams, one for each race, that resulted from the above analysis of educational attainment at entry are presented in Table 2. In the diagram for whites there are paths from each of the four family background variables to the education variable, while in that for blacks the path between father's educational attainment and that of the respondent is omitted as the corresponding regression coefficient was not statistically significant at the .05 level. In both cases the largest causal factor of education was the residual term.

In order to introduce the numbers of full-time and part-time jobs held before entry into the diagram, each of these variables was regressed on educational attainment at entry and the four family background variables, separately for whites and blacks. For whites the only significant paths were those between educational attainment at entry and the two variables describing the numbers of jobs held before entry. The impact of each of the family background variables on both the number of

TABLE 2

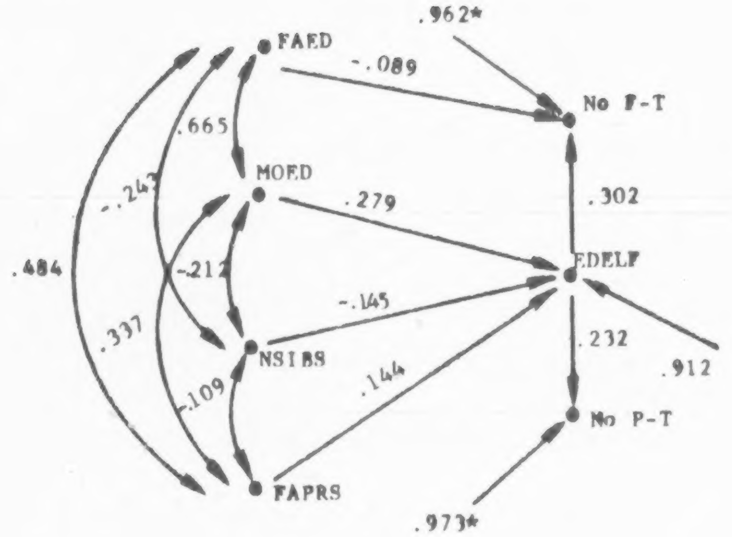
PATH ANALYSIS OF FAMILY BACKGROUND VARIABLES, JOBS BEFORE ENTRY AND EDUCATIONAL ATTAINMENT AT ENTRY, BY RACE

WHITES


FAED
.814*
No F-T
.597
.204
-.287
MOED
.581
.131
.478
-.297
EDELF
NSIBS -.199
.408
.392
.853
-.219
.158
No P-T
FAPRS
.920*

Sample Comparison of Predicted and Actual Correlation Coefficients		
Correlation Between	Predicted	Actual
NO P-T-FAED	.246	.263
MOED	.230	.260
NSIBS	-.193	-.210
FAPRS	.214	.226
NO P-T-FAED	.165	.166
MOED	.155	.162
NSIBS	-.130	-.144
FAPRS	.143	.152

BLACKS


.962*
FAED
-.089
No F-T
.665
MOED
.279
-.243
.302
.484
-.212
EDELF
-.145
.337
NSIBS
.232
.912
-.109
.144
No P-T
FAPRS
.973*

ABBREVIATIONS:

FAED	Father's Education
MOED	Mother's Education
NSIBS	Number of Siblings
FAPRS	Father's Occupational Prestige
NO F-T	Number of Full-time Jobs before Entry
NO P-T	Number of Part-time Jobs before Entry
EDELF	Education at Entry

The residuals of the numbers of full-time and part-time jobs were correlated. The simple correlation was 0.218 for whites, 0.335 for blacks.

full-time and of part-time jobs before entry was all indirect for whites. The background variables affected the numbers of pre-entry jobs through the educational attainment variable.

In the case of the blacks this was not entirely true. The number of part-time jobs before entry was a function only of educational attainment at entry but the number of full-time jobs was a function both of the education variable and of father's education. So the diagram for blacks included paths between education at entry and each of the pre-entry job variables and between the number of full-time jobs before entry and father's educational attainment. The sign of the latter path was negative, indicating that additional units of father's education lowered the estimate of the number of full-time jobs before entry for blacks.

As we have shown in the previous chapter there is a correlation between the numbers of full-time and part-time jobs before entry that could not be explained purely as the spurious result of a number of variables acting on each of the pre-entry job measures. In order to mirror this result in the path diagram it is necessary to assume that the residuals of the job variables are correlated with one another. On the basis of known correlations and path coefficients it is possible to calculate values for the correlation between the residuals. It was found that the values were 0.218 for whites and 0.335 for blacks.

On the basis of the path diagram we have constructed, it is possible to produce estimates of the correlations between all the pairs of variables in the model. The extent to which these estimates approximate the actual correlations, measures how well the model corresponds to reality. The number of correlation coefficients that it is possible to calculate is quite large and in most models some of them will tautologically equal the actual values. For the purposes of testing one of the models, that for whites, we calculated the predicted correlation coefficients between the numbers of full-time and part-time jobs before entry and the four family background variables. A small box in Table 2 shows the estimates of these values derived from the path model and the actual values. Thus for example, the correlation between the number of full-time jobs before entry and father's education was calculated to be .246 on the basis of the model while in reality its value was 0.263, a difference of .017 from the predicted value. All of the other predictions are quite close (within 0.03) to the actual values.

Due to the manner in which the models are constructed there will always be a fairly good correspondence between the predicted and actual values of these correlation coefficients. Since our task here is to develop fairly general models and not to arrive at precise estimates of the outcomes of these social processes, we include only this one sample comparison and do not use systematic tests of goodness of fit.

The Prestige Path Analysis

Building on the model for education, it is now possible to move forward in time and to introduce the prestige scores of the first job after entry and of the jobs held one and two years after entry. Three prestige variables have been entered in the model, the prestige score of the first job after entry and of the jobs held one and two years after entry. Dummy variables measuring whether or not each of these jobs was in the armed forces were also included.

While the family background variables, the numbers of pre-entry jobs and educational attainment at entry were entered in the path diagram, the relationships between them are not shown and the reader is urged to consult Table 2 if he wishes to re-examine these earlier parts of the entry process. In part, the correlation between the job prestige scores is spurious. Many men did not change jobs in the two year period and so the prestige scores of the jobs they held at one point were automatically "correlated" with the ones held at a previous point. This does not render the analysis invalid. No matter whether any job changes have taken place the prestige scores at these points are valid measures.

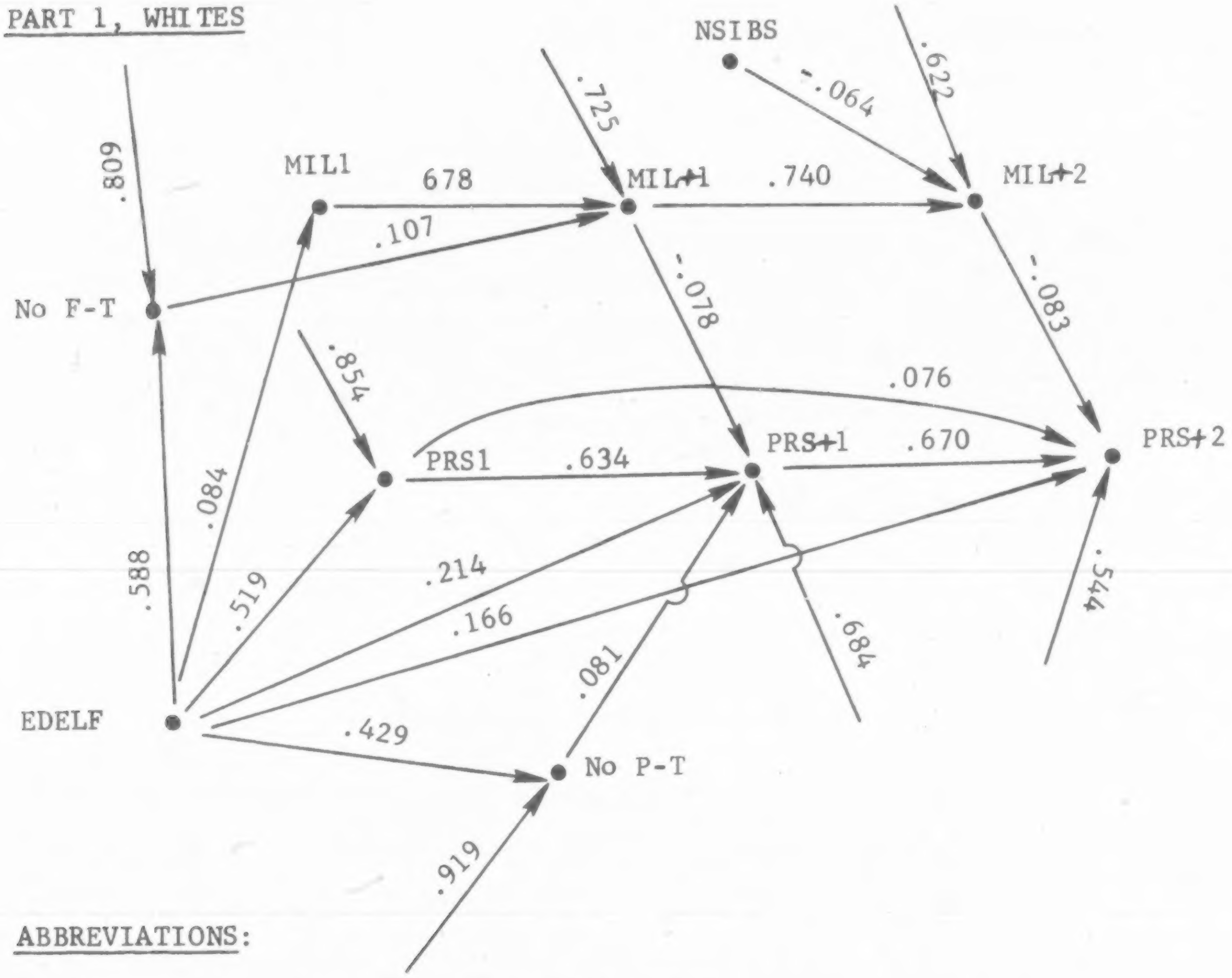
There are a large number of paths in the diagram and the only real way of understanding the process is to stare at Table 3 where the diagram is shown. As a means of summarizing the relationships we will list the variables here and one by one describe how they fit into the whole scheme.

1. Military service as first job? Only educational attainment had statistically significant impact on whether or not a man entered the armed forces as his first job. For both

TABLE 3

PATH ANALYSIS, OCCUPATIONAL PRESTIGE SCORE OF THE FIRST JOB AFTER ENTRY AND THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY

PART 1, WHITES

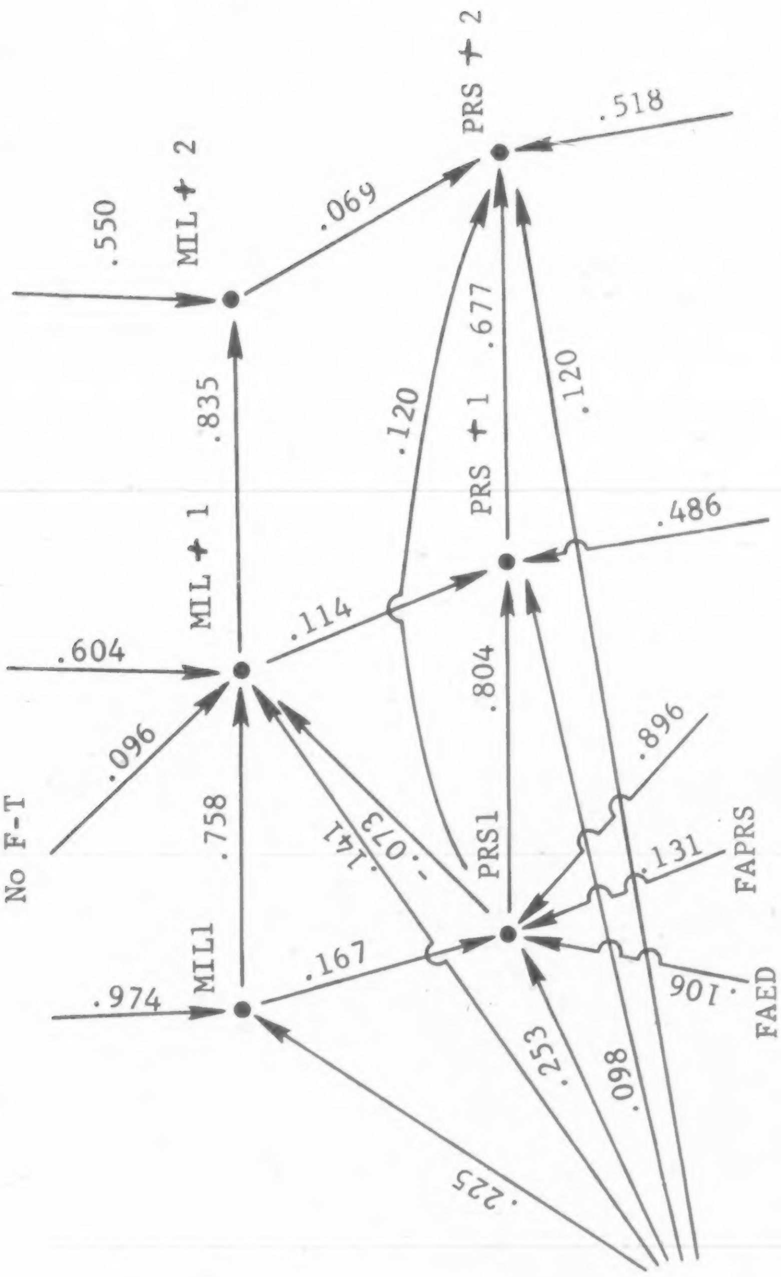

NSIBS
.809
.725
-.064
.622
MIL1
678
MIL+1
.740
MIL+2
.107
No F-T
-.078
-.083
.854
.076
PRS1
.634
PRS+1
.670
PRS+2
.084
.588
.519
.214
.166
.544
.684
.081
EDELF
.429
No P-T
.919

ABBREVIATIONS:

EDELF	Educational Attainment at Entry
MIL1	Dummy varianbe indicating whether or not the
MIL+1	individual was in the armed forces during the first
MIL+2	job and those held 1 and 2 years after entry
PRS-1	Occupational prestige score of the first
PRS+1	job and of the jobs held one and two years
PRS+2	after entry
NO F-T	Number of full-time and part-time
NO P-T	jobs before entry

TABLE 3

PART 2, BLACKS


PRS + 2
.518
MIL + 2
.550
.069
.677
.120
.120
.835
PRS + 1
.486
MIL + 1
.604
.114
.804
.896
No F-T
.096
.758
.141
-.073
PRS1
.131
FAPRS
MIL1
.974
.167
.106
FAED
.253
.098
.225
ED1

whites and blacks, though much more strongly so for the latter, additional units of education raised the probability of entering the armed forces as a first job. The magnitude of the effect was approximately nine times larger for blacks than whites.

2. The prestige of the first job. For whites, only educational attainment at entry had any significant impact on the prestige of the first job. For blacks, over and above the effect of education at entry, father's education, father's occupational prestige and whether or not the individual was in the armed forces influenced the first job prestige. By far the strongest effect was that of education, followed by the military service variable (military service increased the predicted prestige score), father's prestige and father's education had small effects.

3. Military service one year after entry. The best predictor of whether or not a man was in the armed forces a year after entry was wehther or not his first job was in the military. In addition, whites with more full-time jobs before entry appeared more likely to be serving at this point. Blacks with more full-time jobs before entry were more likely to serve as well as those with more education and those with poorer first jobs. For the black population, the tendency for men with more education to join the armed forces is shown by paths between education at entry and military

service for both the first job and for the job held one year after entry. The negative effect of the prestige of the first job is easy enough to explain--controlling on educational attainment, individuals were more likely to enter the armed forces if they had first jobs that were of lower quality, they are in effect driven into the armed forces to escape poor civilian jobs.

4. Prestige one year after entry. For both races, the strongest effect was that of the first job after entry, merely because the same job was often held at both points in time. For both races there was a direct arrow between this job and the educational attainment at entry. This path was much more important for whites and it showed that the impact of education is not all filtered through the first job but that education independently affects the prestige of the first job. For blacks and whites there was a path between military service at the point one year after entry and prestige at that point, only they were of different signs. Blacks entering the armed forces at this point found better jobs than they could expect to find in the civilian work force while for whites the path was negative, the jobs in the armed forces were not as good as typical civilian jobs.

5. Military service two years after entry. The variable showing whether or not the job held one year after entry was in the armed forces was its best predictor--men in the

armed forces at the first point in time were likely to be there later. For whites, the number of siblings had a small effect on this variable though why is not clear. There were no other important factors influencing military service at this point.

6. Prestige of the job held two years after entry. For both whites and blacks four variables affected this one. The most important effect was that of the job held one year after entry, followed by the direct effect of education. The prestige of the first job had some impact on the prestige of the job held two years after entry independent of the job held a year after entry. Finally men in the armed forces who were white were worse off than could be expected in civilian jobs and blacks were better off.

This summarizes the results of the path analysis. The two most important conclusions were that the educational attainment of the individual at entry had a continuing impact on the jobs held over this two year period and that the first job after entry affected later jobs, irrespective of other jobs held at a point closer in time to job prestige being predicted.

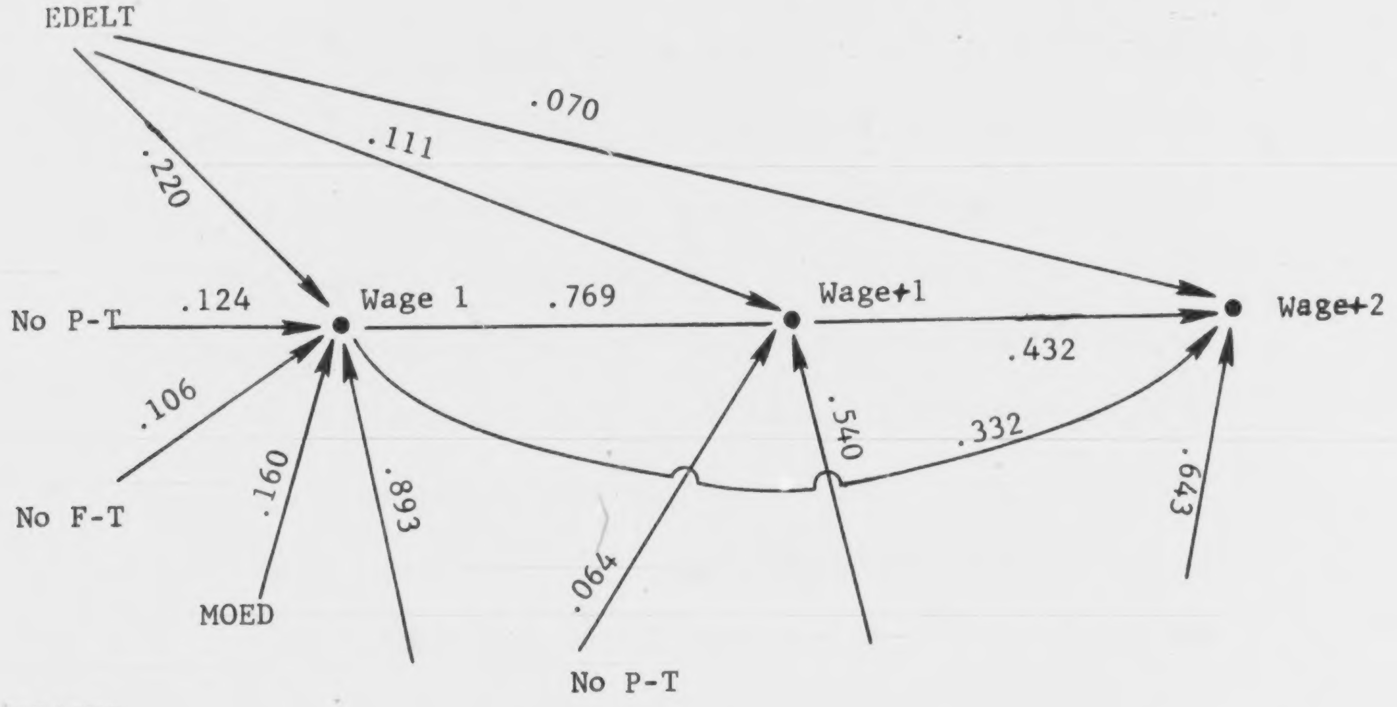
Wage Path Analysis

Because military service does not enter into the calculation, the analysis of the wage results is somewhat easier than the prestige problem. The results of this path analysis are shown in Table 4.

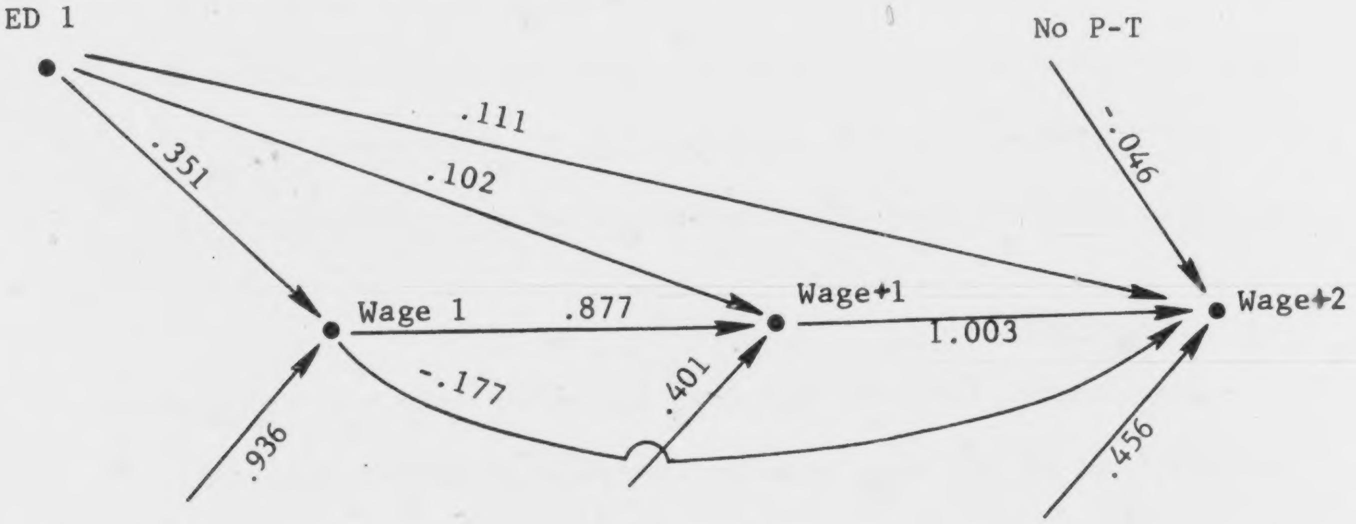
TABLE 4

PATH ANALYSIS OF THE WAGES OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY

WHITES


EDELT
.070
.111
.220
No P-T
.124
Wage 1
.769
Wage+1
Wage+2
.432
.106
.540
.332
.643
No F-T
.160
.893
MOED
.064
No P-T

BLACKS


ED 1
No P-T
.111
.351
.102
-.046
Wage 1
.877
Wage+1
1.003
Wage+2
-.177
.401
.936
.456

The only variable that had any significant impact on the starting wage of blacks' first jobs was educational attainment, though this variable accounted only for around ten percent of the variance. The level of prediction for whites was not much better, though more variables were involved. More education, more full-time and part-time jobs before entry and higher mother's education all increased the starting wages of whites' first jobs, the education variable most important and mother's education second.

The starting wage of the first job after entry had the strongest impact on the wage of the job held one year after entry. Education also had a small effect, independent of the one that flowed through the wage of the first job. For whites, men with more part-time jobs before entry also found jobs at this point at slightly better pay.

The real divergence between the patterns of whites and blacks occurs in the wages of the job held two years after entry. In both cases there is a small amount of direct effect of education and a small effect of part-time jobs before entry for blacks. The big difference lies in the impact of wages. For whites, the wage of the job held one year after entry had the strongest effect and that of the first job had a positive affect that was just slightly smaller than the one year job. For blacks, the effect of the job held one year after entry was very, very strong while that of the first job after entry was negative. This is the classic feedback pattern. Many blacks did not shift jobs during this period and so the first job's negative sign corrected for the overimportance of the jobs held throughout the two year period. The feedback loop does not appear for whites because they changed jobs more often during this period.

Summary of the Path Analyses

The forms of the path diagrams for whites and blacks and for the occupational prestige and wage variables were very similar, though the precise nature of the relationships varied considerably. The descriptions above have dwelled on the construction of these diagrams without dealing with the levels of direct and indirect effects of causally related variables. Here we attempt to summarize the features common to the analyses above and discuss these direct and indirect effects.

While the family background variables had a strong influence on the respondent's educational attainment, they had little impact on either the numbers of full-time and part-time jobs before entry or on the prestige scores and wages from the starting job forward in time. The simple correlations between the family background variables and wages and prestige scores in the first two years after entry were in the range of 0.15 to 0.30, with the larger ones applying to the wage variables. Almost all of the effect of these family background variables was indirect, flowing through the respondent's educational attainment at entry and (for the jobs held one and two years after entry only) through previous jobs. The correlations of these four family background variables with the numbers of full-time jobs after entry were of the order of 0.25 and with the numbers of part-time jobs in this period were around 0.15. All of the impact of family background variables on these pre-entry jobs was mediated through educational attainment.

The occupational prestige score of the first job after entry was largely a function of the respondent's education at entry, this was more the case for whites. Father's education and father's occupational prestige exerted about half their total effects on the blacks' prestige scores directly, the rest flowing through respondent's education. When wages were the dependent variables, educational attainment had a larger direct effect for blacks while mother's education and the numbers of full-time and part-time jobs after entry had some direct effect for whites. Still, in all these cases almost all of the variance was explained by the respondent's education.

Educational attainment had its strongest impact on the starting wages and occupational prestige score of the first job. It continued to affect these variables directly in the first two years after entry, though most of the effect was indirect, flowing through previous jobs. That this should be the case is not surprising. The paths between the first job after entry and the ones held one and two years later were very large, especially for blacks who changed jobs less frequently during this period (and so the job held at any point was more likely to be the same one held at the previous time point).

The military service variables did not have much impact on prestige scores during this period though it was interesting to find that military service tended to lower the prestige values for whites and to raise those of blacks. This is a reflection of the poorer jobs blacks could expect to find in the civilian labour force. While the probability of military service was a positive function of increasing education for both races, the connection between the two variables was a good deal stronger for blacks than whites.

The balance of this chapter is concerned with a multiple regression analysis of the factors influencing the prestige scores and wages of the jobs held in the two years after entry. This approach is intended to flesh out the picture of entry into the labour force that has been started here.

Regression Analysis

The path analyses have provided a background to a more extensive multivariate discussion of the jobs held in the first two years after entry. The variables used in the model building included the family background variables, the number of jobs held before entry, educational attainment of the respondent, and a large number of wage and prestige measures. No mention has so far been made of the variables describing the circumstances under which the jobs in question were found.

The style of investigation now shifts away from the process model approach of path analysis. Regressions with quite large numbers of variables and using the prestige scores and wages in the first two years after entry as the dependent variables will form the basis of this part of the discussion. We will here be concerned with the impact of sets of variables, instead of dealing with the direct and indirect effects of single variables. While individual variables will also be described with some specificity, in looking at clusters of variables it will be possible to arrive at very broad generalizations about the impact of certain factors on the jobs men find. Four such clusters of variables form the basis of the analysis about to be presented: the four family background variables, the numbers of full-time and part-time jobs before entry, educational attainment, and a set of variables known as the "circumstances" under which a job was found. A listing of the individual variables comprising each of these clusters is in Table 5.

The group of variables that was defined earliest in time included the four family background variables, the educational attainment of each parent, the number of siblings in that family, and the father's occupational prestige score. Occupational experience in the years before entry is summarized by two variables measuring the number of full-time and part-time jobs held before entry. Why no measure of the quality of these jobs? Because around two-thirds of the whites and an

TABLE 5

VARIABLES AND CLUSTERS OF VARIABLES INCLUDED IN THE MULTIPLE REGRESSION ANALYSES OF THE PRESTIGE SCORES AND WAGES OF THE JOBS HELD IN THE FIRST TWO YEARS AFTER ENTRY

NUMBER OF CLUSTER	VARIABLES INCLUDED	REMARKS
1. Family background variables	a. father's education	measured on a scale zero to ten
	b. mother's education	
	c. number of siblings	
	d. father's occupational prestige score	
2. Pre-entry jobs	a. number of full-time jobs before entry	
	b. number of part-time jobs before entry	
3. Educational attainment (of respondent)	four dummy variables	the dummy variables measure the difference between four levels of education and a base category consisting of men with no high school. The four higher levels are: some high school, high school graduation, some college, college graduation
4. "Circumstances" of finding a job	a. military service	dummy variable indicating whether job in question was in the armed forces. Included optionally in the prestige regressions, but never in the wage ones.
	b. move between entry and start of first job? c. distance of above move	these variables can only be used to describe the first job held after entry and not those held one and two years after entry
	d. marital status	a single dummy variable indicating whether or not the individual was married at the point in question. It takes the value zero for men that are single, one if they are married.
	e. means of finding a job	two dummy variables measuring between the base group of jobs found by "personal" means and those found by "active" means and by promotion.
	f. the industry of a job	five dummy variables measure the differences between the base group of jobs in "agriculture, etc." industry and the other five industries. Jobs in the armed forces are scored zero on all five dummy variables but one on the "military service" variable above.

The style of investigation now shifts away from the process model approach of path analysis. Regressions with quite large numbers of variables and using the prestige scores and wages in the first two years after entry as the dependent variables will form the basis of this part of the discussion. We will here be concerned with the impact of sets of variables, instead of dealing with the direct and indirect effects of single variables. While individual variables will also be described with some specificity, in looking at clusters of variables it will be possible to arrive at very broad generalizations about the impact of certain factors on the jobs men find. Four such clusters of variables form the basis of the analysis about to be presented: the four family background variables, the numbers of full-time and part-time jobs before entry, educational attainment, and a set of variables known as the "circumstances" under which a job was found. A listing of the individual variables comprising each of these clusters is in Table 5.

The group of variables that was defined earliest in time included the four family background variables, the educational attainment of each parent, the number of siblings in that family, and the father's occupational prestige score. Occupational experience in the years before entry is summarized by two variables measuring the number of full-time and part-time jobs held before entry. Why no measure of the quality of these jobs? Because around two-thirds of the whites and an

TABLE 5

VARIABLES AND CLUSTERS OF VARIABLES INCLUDED IN THE MULTIPLE REGRESSION ANALYSES OF THE PRESTIGE SCORES AND WAGES OF THE JOBS HELD IN THE FIRST TWO YEARS AFTER ENTRY

NUMBER OF CLUSTER	VARIABLES INCLUDED	REMARKS
1. Family background variables	a. father's education	measured on a scale zero to ten
	b. mother's education	
	c. number of siblings	
	d. father's occupational prestige score	
2. Pre-entry jobs	a. number of full-time jobs before entry	
	b. number of part-time jobs before entry	
3. Educational attainment (of respondent)	four dummy variables	the dummy variables measure the difference between four levels of education and a base category consisting of men with no high school. The four higher levels are: some high school, high school graduation, some college, college graduation
4. "Circumstances" of finding a job	a. military service	dummy variable indicating whether job in question was in the armed forces. Included optionally in the prestige regressions, but never in the wage ones.
	b. move between entry and start of first job? c. distance of above move	these variables can only be used to describe the first job held after entry and not those held one and two years after entry
	d. marital status	a single dummy variable indicating whether or not the individual was married at the point in question. It takes the value zero for men that are single, one if they are married.
	e. means of finding a job	two dummy variables measuring between the base group of jobs found by "personal" means and those found by "active" means and by promotion.
	f. the industry of a job	five dummy variables measure the differences between the base group of jobs in "agriculture, etc." industry and the other five industries. Jobs in the armed forces are scored zero on all five dummy variables but one on the "military service" variable above.

even larger proportion of the blacks had no full-time jobs before entry, or no part-time jobs before entry, or neither. While the means of fitting a variable into a regression analysis which applies only to part of the population is an interesting problem in regression analysis, the substantive payoff of using some involved procedure in order to work these variables into the analysis did not appear to justify the computations involved.

Educational attainment in this analysis was not used in its continuous form but rather was measured by four dummy variables that showed the effect of some high school, high school graduation, some college, and college graduation, measured as differences from the lowest category, no high school. In Chapter 2 we showed that the use of these four variables explained approximately the same amount of variance as the zero to ten scoring of education. It has the advantage of providing precise estimates of the impact of the five levels of educational attainment, regardless of the linearity of the relationship between education and the dependent variable.

The most complex of the clusters of variables was called the "circumstances" of finding the job. It consisted of up to eleven variables, though in specific instances one or more of these variables was excluded from the regression. Three sets of variables measuring the industry of the job, the means of finding the job and the respondent's marital status, were always included in this cluster. The industry of the job was entered by five dummy variables that measured the differences between five industries and the base category which was made up of jobs in the "agriculture, etc." industry. A pair of dummy variables served to describe the way in which the job was located. Here the base group were jobs found through "personal" means (family and friends); those found by direct means (agencies, advertisements and direct application) and promotions were distinguished from this group. Marital status was measured by a single variable with the value one if the respondent was married at the point in question and zero otherwise.

When jobs in the armed forces were included in the case base for a regression, a single variable indicating whether or not the specific job in question was in the armed forces was included in the "circumstances" cluster. This variable was never included when the dependent variable was a wage measure for wages were never defined for jobs in the armed forces. Two variables were included in this cluster only when the occupational prestige score of the first job after entry was the dependent variable for they described only this job. These variables were a dummy variable indicating whether a move was made between entry and the start of the first job after entry (according to the definition here) and the distance of that move. The distance variable had the value zero if no move was made and was measured in miles.

The prestige scores and wages of the first job after entry and the jobs held one and two years after entry are the dependent variables in this analysis. These variables were regressed on the four clusters of variables individually and also on the combinations of these clusters required to partition the variance among the clusters. The prestige and income variables were never included among the dependent variables. So in the regression of the prestige of the job held two years after entry as the dependent variable the prestige of the first job after entry of the job held one year after entry was not among the dependent variables. This avoids the tautological correlations among these variables that result from the numbers of men holding the same jobs at two or more of these points in time. Second it allows an evaluation of the changes in the impact of the variables described above, without their effects being masked by the extremely high correlations among the wages and prestige scores at the three points in time near entry.

The use of multivariate regression techniques like these here involves many assumptions about the distributions of the variables and the form of the relationships among them. While the extensive use of dummy variables minimized the necessity of assuming the linearity of the model, most of the variables are not normal and the assumptions of non-interaction cannot be proven correct. On the basis of the detailed bivariate regressions in the third and fourth chapters it appears that little interaction actually exists among the variables. We proceed by describing in detail the regression of the occupational prestige score on the first job after entry on the four clusters of variables. The same regression with the starting wage of the first job is then presented.

The Occupational Prestige Score of the First Job

Two separate regressions were performed with the occupational prestige of the first job as the dependent variable, one for the entire sample and one including only men whose first jobs were in the civilian work force. In the former case the "military service" dummy variable was included among the independent variables while in the latter it was not. The military jobs always had a prestige score of 30.0. One might expect the inclusion of military jobs to lower the total explained variance because of the insensitivity of the prestige scores of these jobs to any of the dependent variables. However, this need not necessarily be the case, the noncivilian job may fit in well with our prediction of the job a man might be expected to find on the basis of his skills, family background, etc. These regressions are presented in Table 6.

There was very little difference between the equations developed with and without the armed forces jobs. For whites, the four clusters of variables explained a total of 38.8% of the variance for the sample as a whole and 42.2% when only civilian jobs were included. Considerably less of the variance,

TABLE 6

REGRESSION OF THE OCCUPATIONAL PRESTIGE OF THE FIRST JOB AFTER ENTRY ON MANY VARIABLES, BY RACE AND WHETHER OR NOT THE CASE BASE INCLUDED MEN WHOSE FIRST JOBS WERE IN THE ARMED FORCES

	REGRESSION COEFFICIENTS In Prestige Points				STANDARDIZED REGRESSION COEFFICIENTS			
	Whites		Blacks		Whites		Blacks	
Military Included?	Yes	No	Yes	No	Yes	No	Yes	No
Father's Education	-.222	-.235	.450	.504	-.036	-.034	.081	.015
Mother's Education	.268	.399	-.148	-.196	.037	.051	-.025	-.106
Number of Siblings	-.137	-.155	.046	.064	-.033	-.035	.020	.148
Father's Occupational Prestige	.037	.040	.102	.108	.038	.037	.135*	.291*
No. F-T Jobs Before Entry	-.625	-.723	-.340	-.439	-.113*	-.119*	-.048	-.058
No. P-T Jobs Before Entry	.516	.399	-.395	-.394	.079**	.071*	-.051	-.047
Some High School	1.79	1.21	0.59	0.30	.061	.036	.032	.085
High School Graduation	3.36	3.38	1.97	2.19	.139*	.128*	.101**	.106*
Some College	7.26	8.57	4.51	6.21	.180*	.181*	.125*	.148*
College Graduation	17.94	21.69	12.04	16.31	.463*	.512*	.244*	.291*
Military Service	5.06		6.88		.158*		.283*	
Move Between Entry & 1st Job	1.47	0.77	-1.22	-1.43	.035	.018	-.042	-.048
Distance of Move (zero if none) (points/mile)	.0035	.0043	.0018	.0020	.058	.065	.034	.034
Marital Status	0.47	-0.69	-2.02	-2.98	.009	-.012	-.044	-.064
Active Means of Finding Job	2.26	2.36	1.32	1.04	.094*	.089*	.072**	.054
Job Found by Promotion	11.35	12.54	2.41	3.13	.092*	.093*	.020	.024
Industry: Manufacturing	4.64	4.50	2.04	1.95	.161*	.151*	.095	.091**
Transportation	6.61	6.24	0.59	0.49	.136*	.127*	.010	.009
Wholesale & Retail	2.92	2.89	1.09	1.06	.090	.087**	.046	.045
Finance	10.61	9.45	10.79	9.91	.134*	.119*	.176*	.167*
Business	11.35	10.21	5.66	5.17	.275*	.245*	.203*	.189*
Regression Constant	18.63*	18.36*	17.01*	16.94*				
Total Variance					38.79%	42.21%	28.70%	26.28%

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .01 level, but not at the .05 level.

28.7% with the military jobs, and 26.3% without, was explained for blacks. For the white respondents more of the variance was explained with the military jobs, while for the black population the opposite trend was observed. This suggests that the men that entered the armed forces in the black population generally entered jobs appropriate to their levels of education and background while for whites these jobs did not fit in with men's expectations in the civilian work force. The partitioning of the total explained variances is presented in Table 7.

Only in one case, the effect of father's occupational prestige for blacks, did any of the family background variables have a statistically significant impact on the prestige of the first job. All the other regression coefficients for these variables were so close to zero that their signs seemed to vary randomly. When these four family background variables only are regressed on the first job prestige, the variables accounted for approximately ten percent of the variance for whites and blacks. A comparison of their unique effects, obtained by calculation of the decrease in the total variance when the group of four variables was removed from the large regression, showed that their effect was much larger for blacks than whites. The unique effects were 0.3% for whites and 2.7% for blacks (0.4% and 2.8% if military jobs were excluded). The difference between the zero-order and unique variances is a measure of the extent to which the impact of these variables is transmitted through

TABLE 7

PARTITION OF THE VARIANCE OF THE REGRESSION OF THE OCCUPATIONAL PRESTIGE OF THE FIRST JOB AFTER ENTRY ON FAMILY BACKGROUND VARIABLES, THE NUMBERS OF JOBS BEFORE ENTRY, EDUCATIONAL ATTAINMENT AT ENTRY, AND THE "CIRCUMSTANCES" OF THE FIRST JOB, BY RACE AND WHETHER OR NOT THE CASE BASE INCLUDED MEN WHOSE FIRST JOBS WERE IN THE ARMED FORCES. WHEN THESE MILITARY JOBS WERE INCLUDED A VARIABLE MEASURING IF THE FIRST JOB WAS CIVILIAN OR NOT WAS INSERTED INTO THE "CIRCUMSTANCES" GROUP OF VARIABLES.

				WHITES				BLACKS			
Family Back-ground Variable	Numbers of Jobs Before Entry	Educational Attainment At Entry	Circumstances of Finding the First Job	Military Jobs Included		Military Jobs Excluded		Military Jobs Included		Military Jobs Excluded	
1				.33%		.42%		2.70%		2.77%	
	1			.99		.95		0.59		.67	
		1		8.37		10.40		5.04		7.34	
			1	9.40	19.09%	7.75	19.52%	8.51	16.84%	5.11	15.89%
1	1			.01		-.02		0.00		.11	
1		1		1.75		2.16		1.30		2.27	
1			1	.38		.45		1.92		.99	
	1	1		.91		1.22		-0.49		-.57	
	1		1	.07		.02		.15		.11	
		1	1	6.64	9.76	7.31	11.14	4.48	7.36	4.00	6.91
1	1	1		1.20		1.64		-.07		-.18	
1	1		1	.02		.02		.07		.09	
1		1	1	2.11		2.33		4.61		3.68	
	1	1	1	3.37	6.70	3.64	7.63	-.11	4.50	-.06	3.53
1	1	1	1	3.24		3.92		0.00		-.05	
TOTAL VARIANCE				38.79%		42.21%		28.70%		26.28%	

other variables like educational attainment; in path analysis terms it is a measure of the total indirect effect of the four variables. So the greater part of the effect of family background is mediated by other variables. However, it is clear that the family background variables were more important to blacks.

The second cluster consisted of the two variables equal to the numbers of full-time and part-time jobs held before entry. Their contribution was insignificant for blacks though it was curious to find that the signs of the regression coefficients indicated that men with more jobs in this pre-entry period had lower prestige scores, controlling on all the other variables. For whites the two variables did have a significant impact, with predicted prestige of the first job increasing with greater numbers of part-time jobs before entry but decreasing with higher numbers of full-time jobs in this period! The two variables uniquely explained 1.0% of the variance for whites, whichever case base was used. At the zero-order level, the effect of the two pre-entry job variables was around ten percent for whites, but close to zero for blacks. Almost all of the ten percent for whites was channelled through other variables and so was included in the higher order partitions of the variance.

The four dummy variables measuring education strongly influenced the prestige scores of both blacks and whites. Regressing prestige on only these four variables explained 28.6% of the variance for whites, 14.8% for blacks using the whole sample and still more variance, 32.6% for whites and 16.4% for blacks, with military jobs excluded. The unique effects were considerably smaller. They amounted to 18.4% for whites and 5.0% for blacks using all the jobs and 10.4% for whites and 7.3% for blacks with only civilian jobs excluded. This effect was mediated through the circumstances variables and the pre-entry jobs as only these variables followed education in time.

The value of some high school, over the no high school base category, was very small (and statistically insignificant) for both blacks and whites. Some high school was "worth" 1.8 prestige points to whites, 0.6 to blacks. If military jobs were excluded their values decreased to 1.2 for whites and 0.3 for blacks. The substantive interpretation of this finding is that jobs in the armed forces were of higher prestige than those men with some high school could expect to find in the civilian labour force. So some high school was "worth" more prestige if non-civilian jobs are included among those available. This is not the case for men at any higher level of educational attainment. For men with high school graduation, some college, or college graduation the regression coefficients calculated on the basis of those jobs not in the armed forces were larger.

The impact of education was extremely non-linear. A high school diploma was worth around three and a half points to whites, two points to blacks. These values were very similar when calculated with and without the military jobs. Men with some college found considerably better jobs than these, averaging 7.3 points above the base category for whites, 4.5 points for blacks using the sample as a whole for the estimate. With military jobs excluded these estimates rose to 8.6 points for whites, 6.2 for blacks. The college graduation coefficients were more than twice as large, 17.9 prestige points for whites 12.0 points for blacks. They were still greater, 21.7 and 16.3 for whites and blacks respectively, only those in civilian occupations were included among the cases.

Each unit of education was worth one and a half to two times as much to whites as it was to blacks. At each higher level of educational attainment, blacks fall further behind whites. While this finding has emerged before, we now have proof that it is not caused by some other variable. The extent of the nonlinearity among the five levels of educational attainment can be summarized by the observation that each unit of education is worth, in absolute value, between two and three times the previous unit.

The last cluster of variables included either ten or eleven separate variables, depending on whether jobs in the armed forces were included in the calculation. This set of variables played an important part in determining the occupational prestige score of the first job after entry. For the case base including all the jobs, the eleven variables uniquely explained 9.4% of the variance for whites and 8.5% for blacks. Excluding the armed forces–jobs reduced these variances somewhat, to 7.8% for whites and 5.1% for blacks. With the armed forces jobs included, the "circumstances" cluster accounted uniquely for more variance than any of the other clusters. If the military jobs are not included only the educational attainment cluster had more effect than these "circumstances". The effects were very much larger at the zero-order level, accounting for about 25% of the variance for whites and around 14% for blacks. For this cluster of variables only did the unique explained variance decrease when military jobs were excluded. This was primarily the result of the exclusion of the "military service" variable, one that accounted for a fair amount of variance in the former case.

The "military service" variable was only included in the regression that included some jobs in the military, the one based on the sample as a whole. It provides an indication of the prestige value of jobs in the armed forces. If the coefficient is positive, holding all other factors constant, entry into the armed forces provides a better job than could be expected. This one variable accounted for an astonishingly large amount of variance in the regressions in which it was included, 1.7% for whites and 4.9% for blacks! The coefficients were also large--5.1 prestige points for whites and 6.8 points for blacks. But to which jobs are we to compare these values? According to the typology of variables here the armed forces constitute an industry and so the coefficients are measured in comparison to the base industry, "agriculture, etc." Glancing at the coefficients for the other industries we find that jobs in the armed forces ranked around the middle of the prestige range of industries for whites, toward the top of the industry range for blacks. Once again we have evidence that, controlling on all other factors, blacks have more to gain than whites from entering the armed forces. All the other coefficients in this cluster are defined both on the basis of all the jobs and of non-civilian jobs.

The effect of making a move in the period between entry and the start of the first job and of the distance moved were insignificant, accounting uniquely for about 0.3% of the variance for whites and perhaps a third of that for blacks. It is interesting to observe that the impact of making a move increased the prestige of the first job slightly for whites and decreased it slightly for blacks, while both whites and blacks gained in prestige for each mile moved. As a result there was a break even distance for blacks' moves only of around seven hundred miles. Moves of a shorter distance lowered their expected prestige scores while longer ones raised it. The effects for both races were very unreliable because of the small numbers of men making moves on which the value is based.

Jobs found through "active" means had higher prestige scores than those in the base category that were found through family and friends. A job found by "active" means averaged 2.3 points above the base category for whites and just over a point above the reference group for blacks. Those found by promotion were around twelve points higher for whites, three points higher for blacks. The estimates of the impact of finding a job by promotion were unreliable because of the small numbers of men that were promoted into these first jobs (less than ten).

Five regression coefficients relative to the "agriculture, etc." industry were calculated for the industry of the first job. Those derived from the regressions including all first jobs were between five and fifteen percent larger than the ones obtained on the basis of only civilian jobs. The ordering of their magnitudes in the pairs of equations was the same and so we will describe only one set, those obtained from the regression that included all the cases. The five industry variables uniquely explained approximately ten percent of the variance for whites with all the cases included, eight percent with the military jobs removed from the case base. The corresponding figures were five and six percent for blacks.

In almost all cases, the industry coefficients for whites were larger than those for blacks. This means that there was a larger gap between jobs in the "agriculture, etc." industry and other industries for whites than blacks. But the agricultural jobs were very poor ones and so we can conclude that blacks in a specific industry, holding constant all other variables, tended to find significantly poorer jobs than whites. Thus whites whose jobs were in the manufacturing industry obtained first job prestige scores around 4.6 points above the base category in comparison to a difference of only 2.0 points for blacks and similarly the transportation industry jobs were 6.6 points above the base for whites but only 0.6 points higher for blacks. In the wholesale and retail trades, whites were on the average three points and blacks only one point above the base group. The only industry in which there was no race difference was "finance" where the jobs were 10.6 points above the base for whites, 10.8 points higher for blacks. Blacks in "business" were again significantly disadvantaged, holding jobs 5.7 points above agriculture, compared to an average of 11.4 points for whites.

In Chapter 3 (Table 12) an evaluation of the impact of industry of the first job on the prestige value of that job was also presented, controlling only on educational attainment. A comparison of the estimates of the effects of the different industry categories from this earlier analysis and the ones found here, with all the other variables controlled, revealed insignificant differences between the two. Thus it appears that there was relatively little interaction between the industry variables and others in the regression equation and further that multicolinearity effects were not to large.

The impact of the marital status of the respondent at entry on the prestige scores was negligible. Relatively few men were married and so the coefficients were not too reliable. The blacks' coefficient was negative, implying that men who were married at entry found lower prestige jobs than those they might otherwise expect, by two prestige points.

We have so far ignored the regression constants of the equations, the baselines from which all of the above effects are measured. There was only a small difference between the constants derived from the regression including and excluding jobs in the armed forces. The constant for whites was about 18.5 prestige points and for blacks it was seventeen points. Thus the baseline for whites is higher. There are many other sources of inequality between whites and blacks, though the impact of three of the variables accounts for most of the difference. Blacks get less out of the schooling they do receive than whites, gain less from finding jobs in universalistic ways, and within the same industry find poorer jobs than whites.

Finally there is one more abstract difference between the regression equations derived for whites and blacks; there is more multicolinearity among the variables for whites. In other words, the independent variables were better predictors of one another for whites. The sum of the unique variances of the four clusters of variables accounted for sixty percent of the total explained for blacks, only around half as much for whites. There are a number of other differences in the partitioning of variances between whites and blacks most of which appear to be the result of the difference between the impact of the pre-entry jobs on the two races--they explained a substantial amount of variance for whites, almost none for blacks.

The Starting Wage of the First Job After Entry

The treatment of the starting wage of the first job benefits from one simplification in comparison to the prestige analysis, there was only one pair of regressions. All the analyses were performed on the case base of men that were not in the armed forces, for no wages were defined for the military jobs. The entire set of variables accounted for 28.1% of the variance for whites, only 15.3% for blacks. The regression is in Table 8, the partitioning of variance in Table 9.

The family background variables had little impact on the starting wage of the first job after entry. They uniquely explained 2.8% of the variance for whites but only 0.7% for blacks. Curiously this pattern is the opposite of that found in the prestige regressions where family background explained more of the variance for blacks than whites, 2.8% versus 0.4%. The only significant coefficients related the mother's education and number of siblings variables to the wages of whites.

The numbers of pre-entry jobs had no impact on black wages and only a small effect on the wages of whites, uniquely explaining 2.1% of the variance for whites and 0.1% for blacks. Each full-time job before entry was worth \$5.9 per month in starting wages and each part-time job \$9.0 per month. The

TABLE 8

REGRESSION OF THE STARTING WAGE OF THE FIRST JOB AFTER ENTRY ON MANY VARIABLES, BY RACE

	Regression Coefficients in Dollars		Standardized Regression Coefficients		Unique Variance	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
Father's Education	- 3.15	5.93	-0.044	0.077	.11%	.27%
Mother's Education	11.7	2.19	.143*	.027	1.20	.04
Number of Siblings	- 3.72	0.28	- .080**	.010	.51	.01
Father's Occupational Prestige	0.76	-0.58	.067	-.058	.31	.24
No. Full-time Jobs Before Entry	5.86	1.46	.093**	.015	0.47	.02
No. Part-time Jobs Before Entry	9.01	2.16	.124*	.020	1.18	.03
Some High School	48.3	41.8	.140*	.163*	1.04	1.71
High School Grad.	50.8	58.9	.186*	.222*	1.35	2.71
Some College	42.8	92.5	.087	.172*	.41	2.13
College Graduation	97.7	111.8	.223*	.156*	1.66	1.78
Move Before Entry	0.5	-48.3	.001	-.128*	.00	.61
Distance of Move	.119	.140	.174*	.186*	1.86	1.31
Marital Status	1.2	41.7	.002	.069	.00	.42
Active Means of Finding Job	14.4	13.8	.053	.056	.24	.28
Promotion to Obtain Job	165.6	59.2	.119*	.036	1.31	.11
Industry: Manufacturing	15.0	8.9	.049	.033	.16	.07
Transportation	14.8	21.7	.029	.029	.07	.08
Wholesale and Retail	-47.4	-19.3	- .138*	-.065	1.36	.29
Finance	-37.8	80.6	- .046	.106*	.19	.96
Business	-37.0	3.2	- .086**	.009	.52	.01
Regression Constant	137.2	150.6				
Total Variance					28.1%	15.3%

*Significant at .01 level.
**Significant at .05 level, but not at the .01 level.

TABLE 9

PARTITION OF THE VARIANCE OF THE REGRESSION OF THE STARTING WAGE OF THE FIRST JOB AFTER ENTRY ON FAMILY BACKGROUND VARIABLES, THE NUMBERS OF JOBS BEFORE ENTRY, EDUCATIONAL ATTAINMENT AT ENTRY, AND THE "CIRCUMSTANCES" OF THE FIRST JOB, BY RACE

Family Background	Job Before Entry	Educational Attainment at Entry	Circumstances of First Job	Unique Variance			
				Whites		Blacks	
1				2.79%		0.66%	
	1			2.14		.08	
		1		2.11		4.07	
			1	7.58	14.62%	4.02	8.83%
1	1			0.35		- .03	
1		1		2.56		1.02	
1			1	-0.18		0.21	
	1	1		2.58		0.70	
	1		1	0.51		- .06	
		1	1	-0.03	5.79	3.41	5.25
1	1	1		3.26		.00	
1	1		1	0.08		.01	
1		1	1	0.32		.79	
	1	1	1	1.69	5.35	- .75	.05
1	1	1	1	2.30		1.12	
TOTAL				28.06%		15.25%	

corresponding figures for blacks were of the same sign but only around a fourth as large. In contrast to their effect on the prestige level of the first job, pre-entry work experience had an unequivocally positive effect on first job wages.

The zero-order variances of the four educational attainment variables were fairly large, 14.8% for whites and 10.4% for blacks. When all the other variables were introduced into the regression equation these estimates fell substantially, to 2.1% and 4.1% for whites and blacks respectively. For whites there was little difference in the "value" of some high school, high school graduation, and some college, each added between $40 and $50 per month to the starting wage of the first job. For black respondents some high school was worth $41.8, high school graduation was worth $58.9, and some college $92.5 per month. Graduation from college added $97.7 to whites' starting wages and $111.8 per month to those of blacks. We should note that the educational attainment variables explained far less of the variance in these wage variables than was the case for the prestige values. Education explained more of the variance in whites' prestige scores than in those of blacks and more of the variance in blacks' wages than whites'.

The last cluster of variables describing the "circumstances" of finding the first job explained 12.3% of the variances in first jobs' starting wages for whites, 8.8% for blacks at the zero-order level. The insertion of the other variable clusters brought the unique estimates of these effects down to 7.6% for whites and 4.0% for blacks.

Once again the impact of making a move in the period between entry and the start of the first job was positive for whites (though very small, only $0.5 per month) and negative for blacks. It cost a black man $48.3 to make such a geographic move. And once again both races gained more income for each mile moved, 11.9¢ per mile for whites and 14.0¢ per mile per month for blacks. There is again a break even point for blacks and we find that moves of over three hundred miles raised the starting wage of the first job. Whites gain for each mile moved without having to pay the initial penalty of blacks. For blacks the break even point for occupational prestige was greater than that for wages and it had the value seven hundred miles. For both races the variance explained by the two variables was around two percent, at the unique level. All of this was due to the distance variable for whites while about a third of the total was attributable to whether or not a move was made for blacks.

Black men that were married at entry found jobs that payed better than those found by single men. The unique variance explained was 0.4% which corresponded to a difference of $41.7 per month. For whites there was no effect whatever.

The effect of the means of finding the first job on the wage of that job was similar to its impact on the prestige of the job. White men who found their first jobs by "active" means (agencies, advertisements, and direct application) earned $14.4 per month more than their counterparts that found this job through family and friends; for blacks the difference amounted to $13.8 per month. Large but unreliable estimates for the impact of finding a job by promotion were also obtained--$165.6 per month for whites and $59.2 for blacks. The unique variance explained by this pair of variables amount to 1.5% for whites, only a fourth that for blacks.

Compared to the impact the industry of the first job had on the prestige score of that job, the effect of these variables on the starting wage of the job was not large. Most of the industry regression coefficients were not statistically significant and their total unique variance was only two percent for whites and a little less for blacks.

All the regression coefficients were relative to the starting wages of the "agriculture, etc." industry. There are several differences between the industry coefficients of whites and blacks, though the results for the manufacturing and transportation industries were similar. Men whose first jobs were in both these industries received only slightly higher starting wages than those in the base group. The wages in the wholesale and retail trades were below the "agriculture, etc." industry for both races, by $47.4 per month for whites and by $19.3 per month for blacks. Whites in the finance and business industries earned about $37 below the reference compared to $80.6 per month above agriculture for whites in the finance industry and $3.2 above this reference for blacks in "business". There appeared to be little relationship between the wage and prestige levels of these industries.

The partitioning of the variance among the four clusters of variables evidenced a few small race differences. For whites, about two and a half percent of the variance lay in the portion overlapping family background and education and the same amount in the overlapping of pre-entry jobs and education. Only around one percent of the variance was found in the corresponding partitions for blacks. An additional 3.4% of the variance for blacks was in the overlap of education and the "circumstances" cluster while for whites there was no variance in this partition.

A comparison of the equations for blacks and whites revealed no systematic differences favoring either race. The regression constants were $137.2 per month for whites and $150.6 per month for blacks. Blacks were more able to convert marital status (i.e. being married), educational attainment, jobs in some industries, and father's education into higher first job starting wages. Whites gained more from mother's education, father's occupational prestige, obtaining jobs by promotion and from pre-entry work experience. There is little to chose between the whites' and blacks' wages.

Rather small amounts of variance were explained in each of the wage regressions. In analyses like this it is often conventional to regard the prestige score of the job as a predictor of the wage. The zero-order correlations between the wage at the start of the first job and its occupational prestige were only 0.316 for whites and 0.215 for blacks. The inclusion of the prestige variable among the independent variables in the wage regression did raise the total variance explained, but not by very much. For whites the additional variance amounted to 1.2% and for blacks it was 0.8%. After inserting the other variables the prestige value is not a very important predictor of wages. The wage and prestige variables are two rather different indices of job quality.

It may be that the inclusion of other variables--region of the country, a measure of intelligence, personality traits, better industry measures--might raise our ability to predict wages from their present rather low levels. Variables describing the employer and the job more specifically like which it was unionized would raise the variance. A decrease in the measurement error might have some effect. The alternative is to accept the fact that there is in fact a great deal of randomness in these wage values. On the basis of the evidence here, no conclusive answer to this dilemma arises Intuitively, the second explanation, that there is in fact randomness in the real world, is the more appealing. Though only a few variables have been dealt with, of the myriad of measures of individual traits, it is difficult to believe that after including educational attainment, four measures of family background, etc., the addition of more variables would much improve our predictive power. Alternatively it may be that in the course of a rather cavalier insertion of dummy variables the linearity and non-interaction assumptions of regression have been so violated that the predictive power must remain low. However, the fact that the carefully performed bivariate regressions have yielded results very similar to these suggests the regression procedures are in fact justified. Thus it appears that there is really a great deal of randomness in the starting wages of mens jobs, even after the effects of all our variables have been removed.

There are clear differences between blacks and whites throughout this material. Curiously, the family background variables had more impact on the starting wages of whites than of blacks but more impact on the prestige scores of blacks than whites! The pre-entry jobs had only a weak effect on the first job and this effect was especially small for blacks. Educational attainment manifested the same pattern as the family background variables, affecting more strongly whites prestige scores and blacks starting wages. For both wages and prestige the "circumstances" variables had more impact for whites than blacks.

If now we consider the occupational prestige scores and wages of the men one and two years after they have entered the labour force, a number of changes occur in the relationship between these variables and the four clusters of independent variables. The next section deals with these differences.

Variance Later in the Entry Period

Regressions similar to the ones above were performed with wages and prestige scores one and two years after entry as the dependent variables. Again separate calculations of the prestige regressions were made for case bases that included all the men and for men who were not in the armed forces at these two points in time. The main difficulty in this part of the analysis is the bewildering quantity of data involved. It is possible to proceed as we have so far and to treat in turn the prestige and wage regressions for the variable defined one and two years after entry or alternatively we can discuss each of the variables in turn and examine the way in which their relationships to the dependent variables change over this two year period. The second path was chosen in the hope that it would make it easier to present a coherent picture of the changes that took place during this time interval.

Dealing first with the prestige scores we find that in the two year period between entry and the point two years later a marked increase in the predictive ability of the independent variables occurred. Among men not in the armed forces we explain 42.2% of the variance in the prestige score of the first job after entry for whites and 54.6% two years after entry. The same sort of changes occurred for blacks where the explained variance rises from 26.3% to 37.3%. The precise results are found in Table 10.

Race, whether or not military jobs were included, and the time point of the regression influence the total explained variance. The impact of these factors can be summarized with three generalizations:

1. More variance is explained in the whites' regressions, holding all other factors constant.
2. The greater the period of time between entry and point at which the prestige score was defined, the more variance it was possible to explain, again holding the other two factors constant.
3. The inclusion of jobs in the armed forces in the regression lowered the explained variance.

In the basis of these three rules it is possible to make eighteen predictions of the relative magnitudes of the explained variances--seventeen of these were found to be correct. The differences between the black and white regressions, with the time point and whether or not military jobs were included held constant, varied between fifteen and twenty percent, that is fifteen to twenty percent more variance was explained for whites. The exclusion of jobs in the armed forces raised the total variance between four and eight percent. The difference in variance between the regressions performed on the occupational

TABLE 10

CHARACTERISTICS OF THE PARTITIONING OF VARIANCE OF REGRESSIONS WITH OCCUPATIONAL PRESTIGE AT ENTRY AND ONE AND TWO YEARS AFTER ENTRY BY RACE AND WHETHER OR NOT MILITARY JOBS WERE INCLUDED IN OR EXCLUDED FROM THE CASE BASE.

			Percent of Total Variance Uniquely Attributable to Different Clusters of Variables				Percent of Total Variance for Variables Taken in Groups of Different Sizes				Total Variance
Race	Military Included?	Time of Prestige Measure	Family Back-ground	Jobs Before Entry	Educ. Attain.	"Circumstances" of Finding Job	Singley	In Pairs	In Threes	Four at a Time	
WHITES	Yes	Entry	0.9%	2.6%	21.6%	24.2%	50.3%	25.8%	17.7%	8.5%	38.79%
		1 Yr.	0.2	2.1	16.9	19.6	38.7	38.4	22.2	10.6	44.20
		2 Yrs.	1.0	1.2	14.5	22.8	41.5	28.8	21.3	10.2	46.65
	No	Entry	1.0	2.3	24.6	18.4	46.3	26.4	18.1	9.3	42.21
		1 Yr.	0.3	1.2	19.1	11.3	31.9	29.4	25.6	13.0	53.10
		2 Yrs.	1.8	1.0	16.1	12.5	31.4	28.6	25.9	14.1	54.56
BLACKS	Yes	Entry	9.4	2.1	17.6	29.7	58.8	25.6	15.7	0.0	28.70
		1 Yr.	7.1	2.7	23.2	21.1	54.1	25.9	19.8	0.2	28.90
		2 Yrs.	7.2	0.9	28.8	17.6	54.5	26.4	17.6	1.5	32.41
	No	Entry	10.5	2.6	28.9	19.4	60.5	26.3	13.4	0.2	26.28
		1 Yr.	6.5	3.9	33.7	14.5	58.7	27.9	13.6	0.3	32.69
		2 Yrs.	8.2	1.7	39.8	9.4	59.1	26.8	13.2	0.9	37.25

prestige of the first job and those for the job held two years after entry was between four and twelve percent.

Table 11 contains the variance results obtained with wage as the dependent variable. The total explained variance fell from 28.1% for the first job after entry, to 27.2% for the job held a year after entry, to 20.9% for the job held a year after that for whites. Here, of course, jobs in the armed forces were excluded from the calculation. For blacks, the total variance rose over this period of time from 15.3% at entry, to 19.2% one year later, to 21.7% two years after entry.

Tables 10 and 11 also include a number of statistics summarizing the variances explained by the four clusters of variables included in the regressions. Up until this point we have used a quite conventional method of comparing regression results, we have compared the corresponding unique and zero-order variance in the equations of interest. A somewhat different method is used here. Instead of dealing with the raw variance estimates, we consider the percentage of the total variance explained in a regression within the category of interest.

To be more specific, let us compare two hypothetical regressions--in the first, variable X uniquely explains 5% out of a total variance of 50% while in the second one, X accounts for 5% of a total of 25% explained by all of the variables. The unique contributions of X are the same in each regression. Now if we simply assume that there is more randomness in the second

TABLE 11

CHARACTERISTICS OF THE PARTITIONING OF VARIANCE OF REGRESSIONS WITH WAGES AT ENTRY AND ONE AND TWO YEARS LATER AS THE DEPENDENT VARIABLES, BY RACE

Race	Time of Wage Measure	Percent of Total Variance Uniquely Attributable to Each Cluster of Variables				Percent of Total Variance for Variables Taken in Groups of Different Sizes				
		Family Back-ground	Jobs Before Entry	Educational Attainment	"Circumstances" of Finding Job	Singly	In Pairs	In Threes	Four at a Time	Total Variance
WHITES	1st After Entry	9.9	7.6	7.5	27.0	52.1	20.7	19.0	8.2	28.06
	1 Yr. Later	6.9	13.7	5.8	16.7	43.0	22.6	22.1	12.3	27.21
	2 Yrs. Later	6.8	15.0	5.0	14.3	41.1	17.0	30.1	11.8	20.87
BLACKS	1st After Entry	4.3	.05	26.5	26.4	57.9	34.4	0.3	7.3	15.25
	1 Yr. Later	3.4	0.9	30.1	18.1	52.5	32.0	14.3	1.2	19.18
	2 Yrs. Later	5.7	0.4	32.9	13.5	52.7	33.0	12.8	1.5	21.70

equation and that this is responsible for the difference between the two total explained variances, then it is significant that, relative to the other variables, X is of more importance in the second equation where it explains a fifth of the total variance than in the first where it accounts for only half as large a proportion of the total. By dividing each of the variances we wish to compare by the total explained variance, it is possible to standardize the parameters among a set of regressions in which the explained variances varies widely. Variances of this kind are presented in Tables 10 and 11 and the balance of this discussion deals with measures of this kind.

The impact of the family background variables on the occupational prestige scores was of very much more significance to blacks than whites. This cluster of four variables accounted uniquely for between zero and 1.8% of the total variance for whites, depending on whether or not military jobs were included in the regression and the time point of the regression. These proportions ranged from 6.5% of the total to 10.5% for blacks and the relative impact of the family background variables appeared to decline as jobs were taken farther away from the entry point. For whites, the variances were of such small magnitude that no trend was perceived.

The effects of the numbers of full-time and part-time jobs before entry were very small for both races, averaging only about two percent of the total variance. The only discernable trend appeared to be in the direction of this total decreasing as jobs farther on in the individual's careers were treated.

Clear and interesting trends were readily found in the changing impact of the educational attainment cluster of variables. For whites, the proportion of the total variance uniquely attributable to the education measure declined as jobs that occurred later in time were considered. For example, the proportion of the variance uniquely due to education amounted to 24.6% of the total at the start of the first job, 19.1% one year after entry, and 16.1% two years after entry. The corresponding results for blacks were 28.9% of the total for the first job, 33.7% a year later, and 39.8% two years after entry. Precisely opposite trends appeared for blacks and whites. For blacks the proportion of the total variance uniquely due to educational attainment increased in the first two years after entry. Also it is clear that much more of the total variance was explained by education for blacks than for whites. The inclusion of jobs in the armed forces decreased the proportion of the variance attributable to education.

The impact of the "circumstances" cluster of variables did not vary much between whites and blacks. The unique variance of this set of variables diminished in time and was somewhat greater for the regression than included armed forces jobs.

Due to the multicolinearity among the independent variables, the total of the percentages of the unique variance did not sum to one hundred percent. The lower the proportion of the total accounted for by the separate unique effects of these variables, the more multicolinearity that was present. Beyond this first measure of the multicolinearity it is possible to calculate the contribution of the pairwise partitions of the variance (i.e. the contributions that can only be uniquely assigned to a pair of variable clusters). There is also a part of the total that can only be assigned to one of the four partitions in which the variance can only be assigned to three of the clusters of variables and a last part that is common to all the four clusters.

Among the regressions performed for the sample of blacks, between 54.1% and 60.5% of the total variance could be attributed to the unique effect of one of the four clusters of variables while for whites these proportions ranged only from 31.4% to 50.3% of the total. The differences in these totals indicate that there was considerably more multicolinearity among the independent variables for whites than for blacks. If now a comparison is made among the variances found with the variables taken pairwise, three at a time, and all together we discover that the values for whites were larger. These two observations of the magnitudes of the sums of the variance partitions allow us to generate twenty-four predictions of the relative magnitudes of the variance statistics for whites and blacks. In each case the predicted result appeared in the actual data. For whites the amount of multicolinearity increased as we moved from the first job after entry to the one held two years after entry. This was also the case for blacks though the trend was less marked.

The wage regressions showed some similarities and some differences in comparison to the prestige results. In contrast to the pattern for prestige, more of the total variance was attributable to the unique effects of the background variables for whites than for blacks. The white percentages ranged from 9.9% of the total for the first job after entry to 6.8% two years later while the black percentages ranged from 4.3% to 5.7% over this period. The number of jobs held before entry had a fairly strong impact on the wages of whites but essentially none on those of blacks. The impact on whites' wages grew with time--going from 7.6% of the total variance for the first job after entry to 15.0% two years after entry.

As in the prestige regression, the unique percentage of the total variance attributed to the education variables was far greater for blacks than whites. For blacks the proportion grew in time, for whites it fell. Taking the first job after entry, the proportion of the total variance explained by education was 7.5% for whites and 26.5% for blacks. Two years after entry, the corresponding figures were 5.0% for whites and 32.9% for blacks! There were no apparent differences between whites and blacks in the proportions of the total variance in wage attributable to the circumstances of finding the first job. This proportion fell from about twenty-five percent of the total to around half that in the period between entry and point two years later.

Once again a larger proportion of the total explained variance could be assigned to the unique effect of single clusters of variables for blacks than whites, indicating the higher level of multicolinearity among the independent variables for whites. For both races this proportion of the total due to unique effects diminished in time, a reflection of the increasing multicolinearity of the variables. For the first job held after entry, 52.1% of the total variance was attributable to unique clusters for whites, 57.9% for blacks; two years after entry the figures were 41.1% for whites and 52.7% for blacks. Around a third of the total variance was assignable to the variable clusters taken in pairs, about twenty percent for blacks. These patterns strongly resembled the results found for the prestige variable, which was partly the result of the same set of independent variables being used in both regressions.

The focus of this discussion now changes from the very broad outlines of the forms of the regression equations to the specific contributions of the variables in those equations. In turn we will take each of the factors that have been considered in dealing with the analyses of the starting wages and prestige scores of the first job after entry and attempt to determine the changes in its impact that occurred over the next two years. We start with the family background variables and will then deal with previous jobs, educational attainment and the "circumstances" variables.

Family Background Variables

The family background variables failed to have much impact on the occupational prestige score or starting wage of the first job after entry. This was also the case for the jobs held one and two years after entry. One pattern established at the time of the first job persisted over these two years: the family background variables had a larger effect on the wages of whites than on those of blacks and it had more impact on the prestige scores of blacks than whites. The prestige results are presented in Table 12, those for wages in Table 13.

With occupational prestige as the dependent variable, the unique variance explained by these variables ranged between zero and one percent for whites, between two and three percent for blacks. The inclusion of military jobs in the case base of the regressions lowered the variance estimates for whites by half for blacks by somewhat less. For both races the zero-order variance of the family background variables rose in the period between entry and the point two years later. The zero-order variance for whites at the time of the first job was 10.9% and this increased to 18.4% by the point two years later. Over the same time the unique effect rose only from 0.4% to 1.0%. The same pattern was found for blacks though the difference between the zero-order and unique effects was smaller.

TABLE 12

SUMMARY MEASURES OF THE IMPACT OF THE FAMILY BACKGROUND VARIABLES ON THE OCCUPATIONAL PRESTIGE OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS LATER, BY RACE. REGRESSION RESULTS ARE PRESENTED WITH ALL OTHER VARIABLES CONTROLLED. RESULTS ARE PRESENTED SEPARATELY FOR CASE BASES INCLUDING AND EXCLUDING MILITARY JOBS.

			Regression Coefficients				Standardized Regression Coefficients				Total Variance for all Vars	
Race	Military Included?	Time	Father's Ed.	Mother's Ed.	Number Siblings	Father's Occup. Prestige	Father's Ed.	Mother's Ed.	Number Siblings	Father's Occup. Prestige	Zero-Order	Unique
Whites	Yes	First	- .222	.268	-.137	.037	-.036	.037	-.033	.038	9.04%	.33%
		1 Yr. Later	.029	.199	-.038	-.002	.005	.027	-.009	-.002	10.13	.09
		2 Yrs. Later	- .051	.501*	.038	.023	-.009	.072	.010	.025	11.57	.48
	No	First	- .235	.399	-.155	.040	-.034	.051	-.035	.037	10.92	.42
		1 Yr. Later	- .081	.351	.054	.017	-.011	.042	.012	.015	14.66	.18
		2 Yrs. Later	- .250	.886*	.046	.055	-.035	.107	.010	.049	18.42	.99
Blacks	Yes	First	.450	-.148	.046	.102*	.081	-.025	.020	.135	10.53	2.70
		1 Yr. Later	.446	-.205	-.070	.080*	.081	-.035	-.031	.106	10.45	2.04
		2 Yrs. Later	.617	-.248	-.040	.074*	.111	-.042	-.018	.098	11.32	2.33
	No	First	.504	-.196	.064*	.108*	.015	-.106	.148	.291	9.68	2.77
		1 Yr. Later	.691**	-.459	.001	.083**	.112	-.071	.000	.103	10.97	2.14
		2 Yrs. Later	1.015*	-.526	.052	.080**	.161	.079	.022	.097	12.84	3.04

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

TABLE 13

SUMMARY MEASURES OF THE IMPACT OF THE FAMILY BACKGROUND VARIABLES ON THE WAGES OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY, BY RACE. REGRESSION RESULTS ARE PRESENTED WITH ALL OTHER VARIABLES CONTROLLED

Race	Time	Regression Coefficients				Standardized Regression Coefficients				Total Variance	
		Father's Educ.	Mother's Educ.	Number of Siblings	Father's Occup. Prestige	Father's Educ.	Mother's Educ.	Number of Siblings	Father's Occup. Prestige	Zero-Order	Unique
WHITES	First	- 3.15	11.70*	-3.72**	0.76	-.044	.143	-.080	.067	11.48%	2.79%
	1 Yr. Later	- 4.62	11.60*	-1.49	0.94	-.060	.131	-.030	.078	10.63	1.87
	2 Yrs. Later	-11.1*	11.5**	-4.03	.66	-.116	+.102	-.067	.044	7.13	1.42
BLACKS	First	5.93	2.19	0.28	-0.58	.077	.027	.010	-.058	3.78	.66
	1 Yr. Later	0.09	7.90	- .07	- .044	.001	.090	-.002	-.040	4.57	0.66
	2 Yrs. Later	- 3.17	12.80**	-0.95	-0.29	.037	.137	-.029	-.025	6.50	1.23

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

The values of the regression coefficients were relatively consistent over this two year period. Among those generated for whites only the coefficient measuring the impact of mother's education was significantly different from zero, those associated with the other three variables appeared to randomly fluctuate about zero. Whites with mothers who were high school graduates found jobs about three prestige points higher than the sons of women with less than five years schooling. For blacks, father's occupational prestige and father's education had a consistent impact on the prestige of the jobs in this period. A black respondent whose father was a clerk could expect to find a job with a prestige score about one point higher than the son of a black labourer.

Rather different results appeared among the regressions where wages were the dependent variables. For whites the effect of the family background variables decreased in the two year period, the zero-order effect fell from 11.5% for the first job after entry to 7.1% two years later while the corresponding unique effects declined from 2.8% to 1.4%. Precisely the opposite pattern held for blacks where the zero-order effect climbed from 3.8% to 6.5% and the unique effect from 0.7% to 1.2% over this time. The magnitudes of the variances for whites and blacks converged in these two years. For whites, the most important variable was again mother's education. It changed very little over the two years and resulted in the sons of high school graduates finding jobs at about $40 per month higher pay than the sons of women with less than five years of education. Father's education had a negative effect of approximately the same magnitude. Additional brothers and sisters decreased expected earnings and higher father's prestige raised them.

Two of the family background variables consistently affected blacks earnings: higher mother's education raised predicted wages and higher father's occupational prestige lowered them. The larger effect was that of mother's education. These variables had only a small effect when all other variables were statistically controlled. The impact of the family in which the respondent was raised had a small but consistent effect during this period. The numbers of jobs held before entry are treated next.

Jobs Before Entry

The raw and standardized regression coefficients and measures of the variance explained by the numbers of full-time and part-time jobs before entry are presented in Tables 14 and 15, with the wage results in the latter table, the prestige results in the former. When all the other variables acted as controls the impact of these variables was very small.

There was a startling difference in the magnitudes of the zero-order variances explained by these pre-entry jobs for whites and blacks. If we take the occupational prestige score of the job held two years after entry (and exclude jobs in the armed

TABLE 14

SUMMARY MEASURES OF THE IMPACT OF THE NUMBERS OF JOBS BEFORE ENTRY ON THE OCCUPATIONAL PRESTIGE OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY, BY RACE. REGRESSION RESULTS ARE PRESENTED WITH ALL OTHER VARIABLES CONTROLLED. RESULTS ARE PRESENTED SEPARATELY FOR CASE BASES INCLUDING AND EXCLUDING MILITARY JOBS.

			Regression Coefficients in Prestige Points		Standardized Regression Coefficients		Total Variance	
Race	Military Included?	Time	Full-time Jobs	Part-time Jobs	Full-time Jobs	Part-time Jobs	Zero-Order	Unique
Whites	Yes	First	-.625*	.516**	-.113	.079	9.81%	.99%
		1 Yr. Later	-.312	.698*	-.056	.106	15.65	.92
		2 Yrs. Later	-.266	.517*	-.050	.082	14.75	.57
	No	First	-.723*	.499*	-.119	.071	11.39	.95
		1 Yr. Later	-.433	.633*	-.065	.089	20.95	.65
		2 Yrs. Later	-.373	.567**	-.057	.076	20.83	.52
Blacks	Yes	First	-.340	-.395	-.048	-.051	.14	.59
		1 Yr. Later	-.240	-.589**	-.034	-.076	.64	.78
		2 Yrs. Later	-.074	-.071	-.001	-.053	1.47	.30
	No	First	-.439	-.394	-.058	-.047	0.12	.67
		1 Yr. Later	-.457	-.895**	-.049	-.096	0.33	1.27
		2 Yrs. Later	-.051	-.838**	-.005	-.084	1.18	.65

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

TABLE 15

SUMMARY MEASURES OF THE IMPACT OF THE JOBS BEFORE ENTRY ON THE WAGES OF THE FIRST JOBS AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS LATER, BY RACE. REGRESSION RESULTS ARE PRESENTED WITH ALL OTHER VARIABLES CONTROLLED

Race	Time	Regression Coefficients in Dollars Per Month		Standardized Regression Coeffs.		Total Variance Zero-Unique Order	
		Full-Time Jobs	Part-time Jobs	Full-Time Jobs	Part-Time Jobs		
Whites	First	5.86**	9.01*	.093	.124	12.91%	2.14%
	1 year later	11.11*	11.34*	.156	.143	16.55	3.74
	2 years later	11.75*	13.52*	.133	.138	13.96	3.13
Blacks	First	1.46	2.16	.015	.020	1.07	.08
	1 year later	0.33	5.44	.003	.043	2.24	0.18
	2 years later	- .04	.00	-.031	.002	1.23	0.08

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

forces) we find that the zero-order variance explained was 20.8% for whites, only 1.2% for blacks while the unique effects were very, very much smaller, 0.5% for whites and 0.7% for blacks! No clear pattern emerged with respect to the black unique variances while for whites the unique variance steadily decreased from about one percent of the variance for the first job after entry to around half that at the point twoyears after entry. In spite of the small values of these variance measures the regression coefficients were very stable.

As was true of the first job, the number of full-time jobs before entry was negatively related to occupational prestige for both race, though more strongly and consistently for whites. On the other hand, the number of part-time jobs had a positive relationship to occupational prestige for whites, a negative relationship for blacks. The effects were small. Taking the equations derived for the occupational prestige score one year after entry, excluding military jobs, whites gained 0.6 prestige points per part-time job and lost 0.4 points for every full-time job before entry while for blacks the losses were 0.5 points per full-time job and 0.9 points per part-time job. As we move forward in time the impact of the full-time jobs quickly falls off, especially for blacks, while that of part-time jobs remained relatively stable.

The coefficients and variance estimates obtained for the wage variables were a good deal more intuitively logical. The zero-order variances explained by these jobs were under three percent and the unique effects under one-fifth of one percent for blacks. For whites, these two variables had a quite marked effect and these results apply only to them. The zero-order variance in the occupational prestige scores of the two variables was around fourteen percent and the unique effect around three percent of the variance. The regression coefficients revealed that each full-time job before entry raised the expected wage of the first job by $5.9 per month, each part-time job added $9.0. Two years later each full-time job was worth $11.8 and each part-time job $13.5 per month.

We will now consider the effect of the educational attainment cluster over this two year period following entry. Compared to the somewhat tortured analysis of very small amounts of variance shown here, this is a more interesting and relatively easier task. Education had a strong impact on both wages and prestige scores and so there are far fewer difficulties in discerning trends and in deciding whether they are significant. The data relating education and occupational prestige are in Table 16 and those for wages are in Table 17.

Educational Attainment

We consider first the relationship of educational attainment to occupational prestige in the first two years after entry. For

TABLE 16

SUMMARY MEASURES OF THE IMPACT OF THE FOUR EDUCATIONAL ATTAINMENT DUMMY VARIABLES ON THE OCCUPATIONAL PRESTIGE OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY, BY RACE. REGRESSION RESULTS ARE PRESENTED WITH ALL OTHER VARIABLES CONTROLLED. RESULTS ARE PRESENTED SEPARATELY FOR CASE BASES INCLUDING AND EXCLUDING MILITARY JOBS.

			Regression Coefficients				Standardized Regression Coefficients				Total Variance	
Race	Military Included?	Time	Some H.S.	H.S. Grad.	Some College	College Grad.	Some H.S.	H.S. Grad.	Some College	College Grad.	Zero-Order	Unique
Whites	Yes	First	1.79	3.36*	7.26*	17.94*	.061	.139	.180	.463	27.59%	8.37%
		1 Yr. Later	2.94*	5.03*	7.91*	18.26*	.099	.207	.196	.467	33.63	7.46
		2 Yrs. Later	4.87*	6.07*	9.61*	17.00*	.170	.261	.249	.458	34.11	6.78
	No	First	1.21	3.38*	8.57*	20.21*	.036	.128	.181	.512	32.62	10.40
		1 Yr. Later	1.77	4.83*	9.78*	24.83*	.051	.571	.185	.549	45.45	10.16
		2 Yrs. Later	4.01*	6.07*	12.26*	22.59*	.113	.212	.246	.526	45.82	8.80
Blacks	Yes	First	0.59	1.97**	4.51*	12.04*	.032	.101	.125	.244	14.76	5.04
		1 Yr. Later	0.41	3.03*	5.60*	13.15*	.022	.155	.156	.267	18.47	6.73
		2 Yrs. Later	0.36	3.18*	5.83*	15.82*	.019	.163	.162	.320	22.68	9.33
	No	First	0.30	2.19	6.21*	16.31*	.085	.106	.148	.291	16.43	7.34
		1 Yr. Later	0.33	3.69*	8.33*	21.15*	.017	.168	.196	.345	22.86	11.02
		2 Yrs. Later	.09	4.29*	8.18*	23.62*	.004	.183	.194	.409	29.05	14.81

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

TABLE 17

SUMMARY MEASURES OF THE IMPACT OF THE FOUR EDUCATIONAL ATTAINMENT DUMMY VARIABLES ON THE WAGE OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY, BY RACE. REGRESSION RESULTS ARE PRESENTED WITH ALL OTHER VARIABLES CONTROLLED

		Regression Coefficients				Standardized Regression Coefficients				Total Variance	
Race	Time	Some H.S.	H.S. Grad.	Some College	College Grad.	Some H.S.	H.S. Grad.	Some College	College Grad.	Zero-Order	Unique
WHITES	First	48.3*	50.8*	42.8	97.7*	.140	.186	.087	.223	14.79%	2.11%
	1 Yr. Later	38.7*	48.7*	54.4**	99.5*	.104	.162	.100	.207	16.76	1.57
	2 Yrs. Later	31.5	34.4	73.2**	99.5**	.066	.089	.109	.171	17.64	1.05
BLACKS	First	41.8*	58.9*	92.5*	111.8*	.163	.222	.172	.156	10.36	4.07
	1 Yr. Later	48.7*	54.4*	143.7*	118.5*	.169	.225	.250	.143	14.94	5.78
	2 Yrs. Later	46.3*	76.4*	162.4*	160.8*	.159	.233	.275	.199	17.64	7.14

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

both blacks and whites and whether or not armed force jobs were included in the calculation, the zero-order effect of education grew in the first two years after entry. The variances were much larger for whites than blacks. For whites the zero-order variance increased between the first job and the one held a year after entry with little increase in the next year, while for blacks there was a significant increase between both pairs of estimates. The range of these zero-order variances was as follows: whites including military, 27.6% to 34.1%; whites excluding military, 32.6% to 45.8%; blacks including military 14.8% to 22.7%; blacks excluding military, 16.4% to 29.1%. In each case the lower bound was the variance for the first job and the upperbound applied to the point two years after entry.

The unique variance of education (with military jobs included) for whites fell from 8.4% for the first job after entry to 7.5% a year later to 6.8% two years after entry. However for blacks the unique variance rose during this same period, from 5.0% to 6.7% to 9.3%. Thus it appears that the importance of education during this period increased for blacks and decreased for whites. For whites the unique variances found when armed forces jobs were excluded were about two percent higher than those listed above, for blacks they were between two and five percent higher.

The raw regression coefficients provide estimates of the exact value, in prestige points, of the different units of education. In a discussion of the values of these coefficients four sorts of comparisons are necessary. We must compare whites to blacks, the regressions performed with and without military jobs included, changes in these variables over time, and the intervals between differing levels of education. These data are very complex and the reader can best understand them by examining Table 16 until the patterns begin to make sense. We should note that the coefficients exhibited a remarkable consistency and that almost all of them were statistically different from zero at the .01 level with the exception of a few that measured the impact of very low levels of education. All of the coefficients measure the difference between specific levels of education and the base category, no high school. The units in which they are measured are prestige points.

Perhaps the clearest of the differences manifested in these results were those between whites and blacks. The coefficients generated for whites were larger in virtually all cases (twenty-three out of twenty-four times) than the corresponding values for the black population. Whites found higher prestige jobs than blacks with the same levels of schooling. For example, one year after entry whites with high school diplomas found jobs 5.0 prestige points higher than the base group while the difference for blacks was only 3.0 prestige points.

The magnitudes of the race differences changed in the two years after entry. For individuals with some high school, high school graduation, and some college, the differences between blacks and whites grew larger in the first two years after entry and they decreased for those with college degrees. If the first job after entry is taken as the dependent variable, a calculation based on all the cases showed some high school was worth 1.8 prestige points to whites, 0.6 points to blacks. Two years after entry some high school had grown in value to 4.9 points for whites and was worth only 0.4 points to blacks. Thus the gap between whites and blacks with this level of education did widen over time. Indeed the most significant race differences appeared to exist at the lower levels of education where whites were able to gain some benefit from their schooling while blacks remained mired in jobs like those held by men with no high school. The value of college graduation for whites declined slightly from 17.9 points at the time of the first job to 17.0 prestige points two years after entry; blacks with college diplomas found its average value increased from 12.0 to 15.8 points in this two year span.

The gap between whites and blacks was one and a half to two points larger when jobs in the armed forces were excluded from the population. The influence of the armed forces tends to decrease the gap between the races. Using these five categories of education, the increasing marginal utility of additional units of education found at the time of the first job held throughout this two year period.

What are the differences between the regression coefficients obtained when jobs in the armed forces are included among the case and when they are excluded? Again the pattern found for the first jobs after entry holds up. Men with some high school found slightly better jobs when the regression was based on the whole sample. This indicates that jobs in the armed forces are somewhat better than those they could expect in the civilian labour force. However for high school graduates and for those individuals with more education, inclusion of the armed forces jobs lowered slightly the regression estimates of the prestige scores of the jobs they could expect to find. The logical conclusion is that men with high school diplomas or more education stand to lose by entering the armed forces, compared to the jobs they could expect in the civilian labour force.

The magnitude of these differences increased over time. For blacks, a college degree was worth 12.0 prestige points with military jobs calculated in, 16.3 points if they are excluded, this for the first job after entry. Two years later the figure with the armed forces jobs included was 15.8 points compared to a value of 23.6 points with these armed forces jobs excluded. The cost of entering the armed forces increased in the two years after entry for men with high school diplomas and those who were better educated. This "cost" was greater for men with more education.

There was a broad tendency for the value of each level of educational attainment to increase in the first two years after entry. Thus the value of some high school for whites grew from 1.8 prestige points for the first job after entry to 4.9 points two years after entry, for blacks the value of this level of education in the same period fell from 0.6 to 0.3 points. White high school graduates had first jobs averaging 3.4 points above the reference group at entry, 6.1 points above this level after two years in the labour force. The same amount of education changed in value from 2.0 to 3.2 points for blacks in that time. The increase in the value of these two levels of education was larger for whites than blacks.

The two higher education variables measuring the worth of some college and college graduation also increased in value over time. The values of these coefficients at entry were larger when armed forces jobs were excluded and they rose faster over time when these jobs were omitted. The value of some college to whites changed from 7.3 prestige points at the time of the first job to 9.6 points two years after entry when all jobs were in the case base; the non-military regression yielded values at these two points of 8.6 and 12.3 prestige points in this period. The same pattern is manifest for the college graduation variable.

It is possible to summarize the relationship of education to occupational prestige in these two years (Table 16) in a few sentences. Blacks were worse off than whites, no matter what the criterion. The race gap was greater if a comparison was made between the coefficients generated on the basis of the non-military jobs and was larger at higher levels of educational attainment. Moving from the first job after entry to those held one and two years after entry, the value of each unit of education increased and there was an overall tendency for the prestige differences between adjacent categories of education to increase. Let us now consider the wages of these jobs, as described in Table 17.

All the wage coefficients were calculated on a case base that excluded jobs in the armed forces. For both whites and blacks the zero-order variances explained by education rose in the two years after entry, from 14.8% to 17.6% for whites and from 10.4% to 17.6% for blacks. There was a tendency for the zero-order educational attainment variances to equalize across race. The unique variance for whites decreased in this period from 2.1% to 1.1% while for blacks there was an increase from 4.1% to 7.1%. The decline in the unique contribution of education for whites that occurs while the zero-order variance increased is dramatic evidence of the increasing multicolinearity of the independent variables for whites.

The value of some high school decreased from $48.3 per month for whites at the start of the first job, to $31.5 two years after entry. This coefficient remained relatively stable for blacks at about forty-five dollar per month. A high school diploma fell in value from $50.8 to $34.4 for whites and grew from $58.9 to $76.4 for blacks in this period. The fall in the magnitudes of these coefficients for whites is tied in with the decreased variance education explained while the growth of these values for blacks is related to the increasing unique variance of the education cluster.

Over the two years after entry the value of some college increased from $92.5 to $162.5 per month for whites, from $42.8 to $73.2 per month for blacks. A college degree had a constant value of around a hundred dollars per month for whites while the value of this level of educational attainment increased from $111.8 to $160.8 for blacks. It is clear both from the regression coefficients and the variance measures that the wages of blacks become more dependent on education during this period and that the value of all the levels of education increased for this group. Whites become less certain of the worth of education in this period. Not only does education explain less and less variance for whites but the outcome results in lesser rewards for the education they do have.

Military Service

In those regressions based on the sample as a whole where occupational prestige was the dependent variable, a single dummy variable was included in order to measure the impact of military service. This coefficient showed the "value" of military jobs relative to the "agriculture, etc." industry.

The value of this regression coefficient declined in the first two years after entry, though very much more rapidly for whites than blacks. First jobs in the armed forces were worth 5.1 prestige points to whites but in a year their worth had fallen to 3.9 points and this declined further to 1.2 points after two years of labour force participation. Whites' jobs in the armed forces came more and more to resemble those in "agriculture, etc." the lowest prestige industry. This indicates a real decline in the standing of jobs in the armed forces relative to the jobs men could be expected to find in the civilian labour force. For blacks a military job was worth 6.9 prestige points at entry, 6.0 points a year after entry, and 5.9 points after two years, and so the relative standing of armed force jobs in these two years undergoes very little change in contrast to the whites' pattern.

The single military service dummy variable uniquely explained 1.7% of the variance in the occupational prestige score of the first job after entry for whites and 4.9% for blacks. This one variable uniquely accounted for around a fifth of the total explained variance for blacks! The decline in the value of the regression coefficients was accompanied by a fall in the variance attributable to the military service variable, to 0.1% for whites and 3.9% for blacks. These two years see a precipitous fall in the relative status of armed forces jobs for whites but only a slight decline for blacks. One might speculate that the whites'

TABLE 18

SUMMARY MEASURES OF THE IMPACT OF AN INDIVIDUAL'S BEING IN THE ARMED FORCES ON THE OCCUPATIONAL PRESTIGE OF THE JOB HE HELD IMMEDIATELY AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY. MEASURES ARE TAKEN FROM REGRESSIONS CONTROLLING ON ALL OTHER VARIABLES DESCRIBING THE HISTORY UP TO THAT POINT AND THE CIRCUMSTANCES OF THE PARTICULAR JOB. WHITES AND BLACKS ARE ANALYZED SEPARATELY

Race	Time of Job	Regression Coefficient in Prestige Points	Standardized Regression Coefficient	Unique Variance in Percent	% of Total Variance Explained by Military
WHITES	First After Entry	5.06	.158	1.66%	4.27%
	1 Year Later	3.85	.144	1.04	2.31
	2 Years Later	1.24	.051*	0.13	0.28
BLACKS	First After Entry	6.89	.284	4.88%	18.55%
	1 Year Later	5.98	.284	4.17	14.44
	2 Years Later	5.87	.294	3.94	8.23

*Not significantly different from zero at the .05 level.

pattern will manifest itself for blacks only at a point farther on in their labour force experience.

Marital Status

The effect of marital status on the prestige scores of the jobs held in the first two years after entry was very weak. It appeared that married whites had slightly higher prestige scores than single men during this period and that married blacks had somewhat lower prestige scores than their single counterparts. The effects were statistically insignificant and in no case was this variable uniquely responsible for more than 0.35% of the variance in prestige.

After two years labour force experience, married men of both races earned $30 per month more than single men, holding all other factors constant. For the first job after entry, the differences were $1.2 for whites and $41.7 per month for blacks. In the two years after entry the impact of marital status on the wages of whites increased while its effect on black wages diminished somewhat. Unfortunately these regression coefficients are based on a relatively small proportion of the sample that was married.

It appears that whites gained both in prestige and wages when they marry but that a trade-off occurs for blacks that results in a rise in wages but a fall in prestige score. One might speculate that blacks that married were willing to (or had to) settle for poorer quality jobs, providing they could earn more money in the process. Whites did not need to settle for the trade-off and were able to find high prestige jobs at better pay too. The data are not of sufficient quality to statistically verify this conclusion and in any event the size of the effect is not large.

The Means of Finding Jobs

The regressions that were calculated allow us to compare jobs found through active means (agencies, advertisements, and direct application) and those obtained through promotion to a base group consisting of jobs found through family and friends. The coefficients obtained in the prestige equations are presented in Table 19 and those from the wage regressions are in Table 20. We deal first with the prestige results.

In the two years after entry the gap between the prestige scores of the men who found jobs by active means and the base group widened slightly. The "active" means were clearly superior to using friends and family in locating employment. The differences ranged from one prestige point to three times that, depending on the specific time at which the measurement was made and whether or not armed forces jobs were included among the cases. The inclusion of men whose jobs were in the military had little impact on the regression coefficients, raising those of blacks and lowering those of whites just slightly. There was a larger difference between the active and personal means of finding these jobs for whites than for blacks. The

TABLE 19

SUMMARY MEASURES OF THE IMPACT OF THE MEANS OF FINDING JOBS ON THE OCCUPATIONAL PRESTIGE SCORE OF THE FIRST JOB AFTER ENTRY AND OF THOSE JOBS HELD ONE AND TWO YEARS AFTER ENTRY. REGRESSION RESULTS ARE PRESENTED WITH ALL OTHER VARIABLES HELD CONSTANT. THE BASE CATEGORY CONSISTS OF THOSE JOBS FOUND THROUGH FAMILY AND FRIENDS. RESULTS ARE PRESENTED SEPARATELY FOR CASE BASES INCLUDING AND EXCLUDING JOBS IN THE ARMED FORCES. IF MILITARY JOBS WERE INCLUDED THEN THE MEANS OF FINDING THESE JOBS ARE MISSING.

			Regression Coefficients in Prestige Points		Standardized Regression Coefficients		Unique Variances (Percent)	
Race	Military Included?	Time	"Direct" Means	Promotion	"Direct" Means	Promotion	"Direct" Means	Promotion
Whites	Yes	First Job	2.26*	11.35**	.094	.093	.76%	.79%
		1 Yr.	1.73	5.27**	.070	.090	.43	.74
		2 Yrs.	2.71*	5.55*	.115	.128	1.13	1.36
	No	First Job	2.37**	12.54**	.089	.093	.70	.80
		1 Yr.	2.12	5.52	.074	.081	.48	.60
		2 Yrs.	3.40*	5.34*	.120	.113	1.23	1.07
Blacks	Yes	First Job	1.32	2.41	.072	.020	.46	.03
		1 Yr.	1.69**	2.78	.093	.036	.76	.12
		2 Yrs.	2.07*	1.89	.114	.027	1.15	.07
	No	First Job	1.04	3.13	.054	.024	.26	.05
		1 Yr.	1.22	0.75	.062	.009	.35	.01
		2 Yrs.	1.38	0.13	.069	.002	.42	.00

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

TABLE 20

SUMMARY MEASURES OF THE IMPACT OF THE MEANS OF FINDING JOBS ON THE STARTING WAGE OF THE FIRST JOB AFTER ENTRY AND ON THE WAGES OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY. REGRESSION RESULTS ARE PRESENTED WITH ALL OTHER VARIABLES HELD CONSTANT. THE BASE CATEGORY CONSISTS OF THOSE JOBS FOUND THROUGH FAMILY AND FRIENDS

		Regression Coefficients in Dollars Per Month		Standardized Regression Coefficients		Unique Variances	
Race	Time	"Direct" Means	Promotion	"Direct" Means	Promotion	"Direct" Means	Promotion
WHITES	First Job	$14.4	$165.6	.053	.119	0.24%	1.34%
	1 Year	23.0	24.7	.076	.034	.50	.11
	2 Years	32.7	54.3	.085	.077	.62	.49
BLACKS	First Job	13.8	59.2	.056	0.36	.28	.11
	1 Year	14.0	48.9	.053	.044	.25	.18
	2 Years	30.4**	34.4	.108	.032	1.05	.09

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

difference amounted to 2.3 prestige points at the time of the first job after entry for whites, compared to 1.3 points for blacks (with all jobs included in the regression); by the point two years after entry these values had increased to 2.7 points for whites and 2.1 points for blacks.

Very few blacks obtained promotions in the first two years after entry so the regression estimates of the impact of promotion were extremely unreliable, we consider only the impact of promotions on whites. Of the different means of locating a job, promotion was by far the best, that is jobs found by promotion averaged around twelve prestige points above the base group at the time of the first job, about five and a half points above the base group at the points one and two years after entry. Why the large decrease in the size of the difference? Apparently because the estimate obtained at the start of the first job was extremely unreliable as it was based on less than ten men receiving promotions. Finding a job by promotion generally resulted in around twice the gain made from jobs found by "direct" means.

Jobs found by "direct" means and by promotion had higher wages than those found through family and friends, as was the case for the occupational prestige dimension. First jobs found by direct means paid an average of $14.4 per month for whites, $13.8 more for blacks and two years after entry these coefficients had increased to $32.7 and $30.4 per month. The unique variances increased proportionately. Jobs found by promotion offered higher rates of pay, though there was a great deal of fluctuation in the values due to the small numbers of cases. Jobs found by promotion appeared to pay an average of around fifty dollars per month more than those in the reference group when all other factors were held constant. Last we deal with the industries in which the jobs were held one and two years after entry.

The Effect of Industry

The patterns of occupational prestige scores and wages in the different industries were mostly carried over with little change to the time points one and two years after entry. There were only two small trends in the prestige scores during these two years: whites with first jobs in the wholesale and retail trades had scores around three points above the reference group and this difference declined almost to zero in the two years; blacks in the transportation industry at entry had jobs little better than those in agriculture and after two years they were about two points better. These results are in Tables 21 and 22.

Otherwise the patterns were much the same as those established for the job after entry. Manufacturing industry jobs ranked around four points above the reference for whites, the difference was two points for blacks; men in finance scored around eight points higher than "agriculture, etc."; the business industry coefficients were about ten points for whites and half

TABLE 21

SUMMARY MEASURES OF THE IMPACT OF THE INDUSTRY OF A JOB ON THE OCCUPATIONAL PRESTIGE OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY, BY RACE. THE BASE CATEGORY, TO WHICH ALL VALUES ARE RELATIVE, CONSISTS OF THE JOBS IN AGRICULTURE, MINING AND CONSTRUCTION. RESULTS ARE PRESENTED SEPARATELY FOR CASE BASES INCLUDING AND EXCLUDING MILITARY JOBS.

			REGRESSION COEFFICIENTS						STANDARDIZED REGRESSION COEFFICIENTS					
Race	Military Included?	Time	Mfg.	Trans.	Whlse. and Retail Trades	Finance	Business	Military	Mfg.	Trans.	Whlse. and Retail Trades	Finance	Business	Military
Whites	Yes	First	4.64*	6.61*	2.92	10.61*	11.35*	5.06*	.161	.136	.090	.134	.275	.158
		1 Yr. Later	4.75*	5.62*	2.71	6.44*	13.68*	3.84*	.159	.112	.078	.089	.308	.144
		2 Yrs. Later	3.96*	5.42*	-.10	8.51*	13.10*	1.24	.133	.107	-.003	.120	.286	.051
	No	First	4.50*	6.24*	2.89**	9.45*	10.21*		.151	.127	.087	.119	.245	
		1 Yr. Later	4.67*	6.57*	2.75*	7.03*	10.44*		.151	.131	.078	.098	.235	
		2 Yrs. Later	3.95*	5.56*	-.44	7.45*	9.96*		.127	.111	.012	.106	.218	
Blacks	Yes	First	2.04	0.59	1.09	10.79*	5.66*	6.88*	.095	.010	.046	.176	.203	.284
		1 Yr. Later	2.03	1.39	0.52	3.71	5.01*	5.98*	.091	.024	.022	.066	.162	.284
		2 Yrs. Later	1.80	1.87	0.89	1.87	4.68*	5.87*	.079	.034	.034	.036	.156	.294
	No	First	1.95	0.49	1.06	9.91*	5.17*		.091	.009	.045	.167	.189	
		1 Yr. Later	2.11*	1.42	.083	9.47*	4.94*		.097	.026	.036	.179	.168	
		2 Yrs. Later	1.68	2.26	1.11	6.49*	4.23*		.075	.044	.044	.131	.148	

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

TABLE 22

SUMMARY MEASURES OF THE IMPACT OF THE INDUSTRY OF A JOB ON THE WAGES OF THE FIRST JOB AFTER ENTRY AND OF THE JOBS HELD ONE AND TWO YEARS AFTER ENTRY, BY RACE. THE BASE CATEGORY, TO WHICH ALL VALUES ARE RELATIVE, CONSISTS OF THE JOBS IN AGRICULTURE, MINING, AND CONSTRUCTION.

		REGRESSION COEFFICIENTS					STANDARDIZED REGRESSION COEFFICIENTS				
Race	Time	Manuf.	Trans.	Wholesale and Retail Trades	Finance	Business	Manuf.	Trans.	Wholesale and Retail Trades	Finance	Business
Whites	First	15.0	14.8	-47.4*	-37.8	-37.0	.049	.029	-.139	-.046	-.086
	1 Yr. Later	26.1	17.4	-49.2	-56.8	-23.1	.080	.033	-.131	-.074	-.049
	2 Yrs. Later	6.9	15.4	-54.9**	-42.7	-32.3	.016	.023	-.110	-.045	-.052
Blacks	First	8.9	21.7	-19.3	80.6*	3.2	.033	.029	-.065	.106	.009
	1 Yr. Later	20.8	5.2	-19.4	78.7	- 0.5	.071	.007	-.062	.110	-.001
	2 Yrs. Later	13.9	0.3	-16.4**	41.7	- 7.5	.044	.000	-.047	.060	-.018

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

that for blacks; the coefficient for whites in transportation was about six points and for blacks in the wholesale and retail trades was around one point. Industry had far more impact on the prestige scores of whites than of blacks, few of the blacks' regression coefficients were significantly different from zero while the values were almost all significant for whites.

The changes in the relative ranking of the wages of the jobs in the two years after entry were even smaller than those for occupational prestige. There was a fair amount of random variation in these values that simply resulted from the small numbers of men in each of the industries. The one noticeable trend was a decline from about eighty dollars per month to half that figure in the difference between the wages of blacks in the finance industry and those in the base category. So jobs in the manufacturing and transporation industry were around $15 per month above the base, whites in the wholesale and retail trades earned around fifty dollars less and blacks in this industry fifteen dollars per month less than the reference group. Blacks in the business industry were paid almost the same as those in the base group and whites earned around thirty dollars less. The regression coefficients for men in the finance industry were around minus forty dollars per month.

Of the fifteen regression coefficients calculated to measure the effect of industry on wages only two were statistically significant for each race. The consistency of the results over time leaves little doubt that the differences between industries are real and that a larger number of cases would result in their reaching statistical significance. What this does indicate is that the impact of industry on wages over this period is not very strong and that it showed no signs of having increased in the two year period studied.

Summary

Whites' educational attainment levels and their occupational prestige scores in the first two years after entry were far more predictable than those of blacks. This pattern did not change much in the two year period as the gap in variance remained relatively constant over this period. In marked contrast, the starting wages of whites' first jobs were far more easily explained than those of blacks but this gap disappeared in that period.

Different aspects of family background influenced the educational attainment with which blacks and whites entered the labour force. Mother's education had the most important impact for blacks and father's education and father's occupational prestige most strongly influenced whites education at entry. The family background variables had little impact on the wages and prestige scores of jobs in this period. The large differences between the zero-order and unique variances of these variables suggests that their impact was mediated through educational attainment and other variables. Curiously, family background more strongly influenced whites' wages and blacks occupational prestige scores.

One of the most interesting differences between blacks and whites lay in the fact that the quality of the jobs held by blacks was almost completely unrelated to the extent of their pre-entry work experience. For whites the connection was a fairly strong one. Curiously white men with more full-time jobs before entry had lower prestige scores while the impact of part-time jobs was in the expected positive direction. The effect of these jobs on the wages of jobs in the first two years after entry was in the expected direction of more job experience being associated with higher wages later.

A number of changes took place in the way in which education was related to job prestige scores and wages during the two years after entry, though the main outlines of the relationships remained constant. Educational attainment had much more impact on prestige scores than wages in this period. At every level of education whites received greater prestige benefits for that education than blacks. The inclusion of jobs in the armed forces narrowed this gap somewhat. Over the two years after entry there was a gradual tendency for the prestige value of each level of education to increase while the gap between whites and blacks at all but the college graduation level increased. The effect of education on wages during this period was relatively great for blacks, quite small for whites. The "worth" of different amounts of education decreased for whites and increased for blacks during this time.

For whites it was clear that the relative prestige standing of jobs in the armed forces drastically declined in the two years after entry. While there was a hint of the same trend for blacks the relative levels of their jobs in the military remained relatively stable over that time. Married men seemed to find slightly higher paying jobs, though married blacks had slightly depressed prestige scores. The impact of the means of finding this job and of the industry of the job remained very stable over this period. It was clear that the best jobs were obtained by promotion, followed by those found by "direct" means. There appeared to be no relationship between the prestige scores and rates of pay prevailing in different industries.

In the two years after entry the predictive ability of these variables grew for those regressions with prestige as the dependent variable and for the wages of blacks, but not in terms of the wages of whites. Two years after entry we were able to explain equal proportions of the variance in whites' and blacks' wages. The prestige scores of whites were more predictable than those of blacks. The quantities of variance predicted in prestige were very high, ranging to a maximum of fifty-five percent. There was considerably more multicolinearity among the dependent variables for whites than blacks.

The path analyses have not been discussed in this section and are summarized above. We have so far discussed the determinants of the quality of jobs in the two years after entry. The next chapter deals with a very different aspect of labour force activity in this period, the processes and consequences of changing jobs during this time.

CHAPTER VII

WHY MEN CHANGE JOBS

While a fair amount of research has concerned itself with the quality of the jobs men hold, there has been an almost total neglect of the process of changing from one job to another. Yet in order to understand how occupational mobility takes place we must be able to describe and explain why men change jobs. Individuals have to change jobs in order to change their occupational prestige ratings. While educational attainment and the social class of the family in which an individual was raised are excellent predictors of wages and occupational prestice scores, there is almost no connection between these conventional indicators of social status and the process of changing jobs.

Three central and independent questions motivate this analysis. First we ask whether or not individuals can be characterized according to their styles of job tenure. Is it possible to describe some men as very stable and likely to hold jobs for long periods while others are chronic "movers", switching jobs at very frequent intervals? In more concerete terms this amounts to a discussion of whether a man that has held one or more jobs of a specific duration is likely to hold jobs for the same period in the future. The answer is neither obvious nor tautological, it could be the case that there is no such thing as a style of job changing and that one individual is likely to hold jobs for widely varying periods of time in the course of his career.

This brings us to the second theme of this discussion: why do individuals change jobs? While to a lessor or greater extent it may be possible to describe men as long-term or short-term job holders, there are clearly a number of situational factors that would be likely to influence how long a man remains on a given job, like the availability of other job openings, working conditions on the job, the rate of pay, and the prospects of receiving a promotion. We must assess the relative importance of a number of such factors.

Finally, we should ask whether it pays to change jobs. If factors like educational attainment are held constant, do individuals that make more frequent job changes end up with better jobs, or do the "slow but steady" end up on top? As we have seen before, the fact that patterns of activity exist does nothing to guarantee their importance, while there were distinct patterns of the means of finding jobs this variable turned out to have essentially no impact on the quality of those jobs.

There are two alternative styles of analysis that could be used to deal with this problem. While it is conventional to take the individual as the unit of analysis, it is also possible to consider each job as a "case", which would involve pooling the jobs held over some period, irrespective of differences in the numbers of jobs that each person held. In keeping with the other parts of this investigation we use individuals as the units of analysis.

We use two sorts of measures of job tenure. The simpler is just the duration of a job though it is also possible to use an aggregate measure of the numbers of jobs a man held over some fixed period of time. Specifically, we can take the numbers of jobs held between entry and the points one and two years later as indices of the average durations of jobs in this period. Both of these kinds of variables will be used in this analysis.

Is Job Duration an Individual Variable?

The most direct means of attacking the problem of how large a relationship there is among the jobs of a single individual is to calculate the intercorrelations among the durations of these jobs. Matrices of these results are presented in Table 1. For each respondent, the correlation coefficients among the durations of each of the first five jobs held after entry into the labour force were calculated. In those cases where a man held less than five jobs between entry and the time of the interview he was excluded from the calculation of the relevant coefficients, in other words a "pairwise present" correlation matrix was generated. There were a total of ten parameters for each race.

The result was singularly unimpressive, only three of the ten correlation coefficients for whites and two of the ten for blacks were significantly different from zero (at the .05 level). The largest of the correlations were between the durations of the first job after entry and the second job; the values were 0.171 for whites and 0.139 for blacks. Most of the correlations

TABLE 1

CORRELATIONS AMONG THE DURATIONS OF THE FIRST FIVE JOBS HELD AFTER ENTRY, BY RACE. THE CORRELATION COEFFICIENTS ARE IN THE UPPER DIAGONAL, THE NUMBER OF CASES FOR EACH OF THESE FORM THE LOWER DIAGONAL OF THE MATRIX

		First Job	Second Job	Third Job	Fourth Job	Fifth Job
WHITES	First Job		.171*	.142*	.022	.046
	Second Job	829		.087**	.049	.046
	Third Job	796	796		.025	.011
	Fourth Job	729	729	729		.056
	Fifth Job	630	630	630	630	
BLACKS	First Job		.139*	.003	-.071	.055
	Second Job	719		.101*	-.027	.006
	Third Job	673	673		.007	.002
	Fourth Job	602	602	602		-.027
	Fifth Job	489	489	489	489	

*Statistically different from zero at the .01 level.

**Statistically different from zero at the .05 level, but not at the .01 level.

appeared to be the result of random variation about zero. Even for the pairs of durations with the largest intercorrelations the amounts of variance explained were very small indeed, amounting to less than three percent in all cases. By way of comparison the correlation between the occupational prestige scores of the first two jobs after entry was 0.464 for whites and 0.475 for blacks. The correlation between the wages of these jobs was even higher. These matrices provide little evidence of a strong relationship among the durations of the different jobs a man held. However, the use of a series of jobs that occurred serially, but without our having any real notion of the points in time when they occurred--some men were on their second job within a year of entry while others did not even hold two jobs during the entire period for which the data were collected--suggests that a closer examination of the jobs in the first years after entry would be appropriate.

Apparently the easiest way of performing this analysis is to correlate the number of jobs each individual held in the first year after entry with the number held in the first two years. These correlations were 0.793 for whites and 0.720 for blacks. Surely this provides convincing evidence of the close connection between the durations of individuals' jobs in the period shortly after entry into the labour force. But the two measures contaminate one another. Job changes made in the first year after entry are included in the ones made in the first two years after entry! What is really needed is the correlation between the number of job changes made in the first year after entry and the number of changes made in the second year (i.e. from the end of the first year to the end of the second year) after entry. They were found to be 0.192 for whites and 0.156 for blacks. This confirms our previous conclusion that there was only a weak correlation between the durations of the jobs each man held. The correlations we have presented here were based on the set of individuals who did not enter the armed forces in this two year period so it would be possible to avoid the interference created by the minimum twenty-four month durations of jobs in the armed forces. Calculations based on the whole sample and including all such jobs lead to a very similar conclusion.

The same result was achieved by way of a somewhat different sort of analysis. Individuals were divided into two groups: those who held only one job in their first year after entry and a second set of men with more than one job in this period. For each of these groups, the proportion of men who changed jobs in their second year in the labour force was calculated. Among individuals with only one job in the first year, 33.4% of the whites and 22.3% of the blacks changed jobs in their second year. For those who held two or more jobs in their first year, 35.5% of the whites and 28.6% of the blacks made another job change in the subsequent year. For both whites and blacks the differences between the two groups were insignificant. Holding educational attainment constant did not produce any different results.

There is no very strong evidence that the durations of a job a single individual holds are related to one another in any significant way. The few statistically significant results explained very little of the variation in the lengths of jobs. While individuals cannot be characterized by the durations of their jobs, we cannot therefore conclude that only random error influences the durations of jobs. The durations of specific jobs could be influenced either by characteristics of the individual or of the job itself. Further, we have yet to decide whether some of the variables describing the way in which entry took place might not affect the number of jobs held in this period.

Prediction of the Number of Jobs Held During a Fixed Period of Time After Entry

Let us now attempt to predict the number of jobs held in the first two years after entry with the same sorts of variables that have proven to be good predictors of the wages and prestige scores of these jobs. The regression was performed only for the set of men who were not in the armed forces at the point two years after entry. The presence of men in the military might tend to bias the findings, because of the involuntary twenty-four month minimum durations of their jobs. By excluding all the respondents in the armed forces at the two year point virtually all of those with any military service in this period were excluded from the case base, with the minor exception of a very few men who spent under two years in the armed forces. The number of jobs held in this time was regressed on the family background variables, the numbers of full-time and part-time jobs before entry, educational attainment, the "circumstances" of finding the job held two years after entry and the wage and prestige score of the job. The regression is presented in Table 2. The dependent variable had a very peaked distribution. Every individual had one job in this period or more (though half the blacks and a third of the whites had only one) and few had more than three or four jobs.

Individuals with no high school changed jobs significantly less frequently than those with more education, for both races. White high school graduates changed jobs most frequently, followed by those with some high school, men with some college, and college graduates. For blacks the order was somewhat different, respondents with some college had the greatest number of jobs, with college graduates, high school graduates, and those with some college following in order of decreasing numbers of jobs held. The regression coefficients were small numerically, the difference between the level of education with the lowest number of jobs held and the one with the highest was just over 0.4 jobs in these two years.

TABLE 2

REGRESSION OF MANY VARIABLES ON THE NUMBER OF JOBS HELD BETWEEN ENTRY AND THE TIME POINT TWO YEARS AFTER ENTRY, BY RACE. INDIVIDUALS IN THE ARMED FORCES AS OF THIS TIME POINT ARE EXCLUDED FROM THE CASE BASE

	Regression Coefficient		Standardized Regression Coefficient		Unique Variance	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
Family Background Variables						
Father's Education	-.014	-.027	-.025	-.005	.03%	.00%
Mother's Education	.058	-.360	.091	-.067	.46	.23
Number of Siblings	.027	-.007	.077	-.034	.46	.11
Father's Occupational Prestige	-.003	-.008	-.039	-.013	.10	.01
Jobs Before Entry						
Number of Full-time Jobs	.042	-.027	.084	-.035	.37	.10
Number of Part-time Jobs	.046	.072	.082	.089	.48	.67
Educational Attainment at Entry						
Some High School	.376	.114	.138*	.069	1.09	1.79
High School Graduation	.443	.334	.201*	.178*	1.64	.32
Some College	.183	.403	.048	.120**	.12	.92
College Graduation	.126	.338	.038	.073	.04	.32
Circumstance of Job Held 2 Years After Entry						
Marital Status	.166	.020	.062	.010	.31	.01
Job Found by Active Means	.303	.224	.139*	.139*	1.60	1.72
Obtained by Promotion	.686	.583	.170*	.095**	2.34	.81
Industry: Manufacturing	-.026	-.012	-.011	-.007	.01	.00
Transportation	-.040	.025	-.010	.006	.01	.00
Wholesale and Retail Trades	-.233	.108	-.082	.054	.48	.21
Finance and Public Administ.	.318	.205	.059	.052	.27	.21
Business	-.189	.112	-.054	.049	.17	.16
Quality of Job Held 2 Years After Entry						
Occupational Prestige	-.011	-.0097	-.140**	-.122**	.88	.92
Wage	.00827	.00121	.145*	.021	1.64	.03
Regression Constant	.040	.054				
Total Variance Explained					13.87%	9.23%
Number of Cases					558	533

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level but not at the .01 level.

Individuals who found their jobs two years after entry by "direct" means or by promotion were significantly more likely to have changed jobs in this period. The latter part of this finding is tautological, men that received promotions must have had at least two jobs in this period, the one they held two years after entry and one before that from which they were promoted, since virtually none of the first jobs after entry were obtained by promotion.

Holding all the other variables constant, the occupational prestige score of the job held two years after entry was negatively related to the number of jobs held in this period, while wage at that point was positively related to the number of jobs. The partial correlations between the number of jobs held and the prestige of the job were -0.101 for whites and -0.100 for blacks and the same statistics using the wage variable were 0.137 for whites and 0.020 for blacks. Unfortunately the temporal ordering of these variables is not clear. The regression results suggest that men who changed jobs more frequently found higher paying jobs at lower occupational prestige scores. There appears to be a trade-off of prestige for wage. The implications of this finding will be pursued in the next section.

The remainder of the variables that were included in the regression had no impact on the numbers of jobs held. The twenty variables accounted for only 13.9% of the variance in the number of jobs held during this period for whites, and only 9.2% for blacks. Only three factors, educational attainment, the means of finding the job, and the quality of the job held two years after entry explained significant amounts of the variance. Educational attainment made a unique contribution of around three percent of the variance for both races. The means of finding the job accounted for around four percent of the variance for whites, around two and one half percent for blacks. The wage and prestige variables explained nearly two percent of the variance for whites and about half that for blacks. None of the other variables was significant at the .05 level.

There is a certain consistency to these findings. Individuals with more education and those who used more gregarious means to find jobs were likely to have held more jobs. This suggests that those who changed jobs more frequently were better prepared to deal with the job market. The payoffs of changing jobs were certainly rather small; at the end of two years there seemed only to be a small trade-off of occupational prestige for wages among the more frequent job changers.

On the basis of this regression we cannot draw the apparently obvious conclusion that job changes in this period did no good for individuals. It may be that the men who changed jobs entered the labour market with very poor first jobs and the reason they cannot be differentiated from the rest of the sample two years after entry is that they raised the quality of their jobs by switching out of these first jobs. We now deal with this problem.

The Effect of Changing Jobs on Prestige Scores and Wages in the First Two Years

Let us speculate for a moment about the economic and social factors that might enter into the decision to leave a job. We should expect the men that found very low paying or low prestige first jobs after entry would leave those jobs quickly--the durations of their first jobs should be shorter than those with high paying first jobs. This analysis disregards the fact that men with differing levels of education and other skills have different levels of expectations in the jobs they hold. Thus a college graduate with a job as a technician might be tempted to leave it quickly to find something better while a man with no high school in a technician's job would be foolish to do so. It is necessary to take account of an individual's resources.

The operationalization of a test of this theory is not difficult, though it involves a regression whose variables are rather curiously ordered in time. The number of jobs a man held in the first year after entry was classified into one of four categories: one, two, three, four or more. Three dummy variables were used to measure the difference between a base category containing those men with just one job in this first year, and the groups that held two, three, and four or more jobs in this year. The occupational prestige score and ending wage of the first job after entry were regressed on these three dummy variables measuring the number of jobs held and educational attainment at entry, the latter measured by four dummy variables.

Men with more than one job in this first year after entry into the labour force did indeed have poorer first jobs after entry. Holding educational attainment constant, the first jobs of whites that held two or more jobs in the first year were 2.4 prestige points below those of the men with only one job in this period, those with three jobs had first jobs that averaged 5.0 points lower than the reference group! The same pattern appears for blacks, compared to the group with only one job in the first year, those with two jobs had first jobs averaging 3.9 points lower, those with three jobs averaged 4.6 points lower, and those with four or more averaged 13.6 prestige points lower. All of these results were statistically significant except that obtained for the group with four or more jobs, in which there were very few cases. This regression is presented in Table 3.

The variance estimates for this regression are very interesting. In general the effect of the numbers of jobs held was not a large one; the set of three dummy variables uniquely explained 1.5% of the variance in whites' occupational prestige score and 3.4% for blacks, compared to unique contributions of 28.9% and 16.8% for education. These unique contributions of the "numbers of jobs held" variables were larger than the zero-order variances, they were equal to 0.3% for whites and 1.1% for blacks. This rather rare pattern is the mathematical translation of the statement that individuals gauge their expectations of job quality by the level of their skills, as measured by education.

TABLE 3

REGRESSION OF EDUCATIONAL ATTAINMENT (ONE AND TWO YEARS AFTER ENTRY) AND THE NUMBER OF JOBS HELD BETWEEN ENTRY AND THE POINTS ONE AND TWO YEARS AFTER ENTRY ON OCCUPATIONAL PRESTIGE OF THE FIRST JOB AFTER ENTRY

	FOR INDEPENDENT VARIABLES MEASURED ONE YEAR AFTER ENTRY		FOR INDEPENDENT VARIABLES MEASURED TWO YEARS AFTER ENTRY	
	Variance in the Occupational Prestige of the First Job After Entry		Variance in the Occupational Prestige of the First Job After Entry	
	Whites	Blacks	Whites	Blacks
Zero-order Effects: Education	27.7%	14.6%	28.3%	14.5%
Number of Jobs	0.3	1.1	2.3	3.1
Unique Effects: Education	28.9	16.8	29.3	16.6
Number of Jobs	1.5	3.4	2.3	5.3
Overlap	-1.2	-2.2	-1.0	-2.1
Total Variance without Interaction	29.2	17.9	30.6	19.8
Unique Interaction Variance	1.2**	1.9**	2.0**	3.0**
Total Variance with Interaction	30.4%	19.8%	32.6%	22.7%
	Regression Coefficients in Prestige Points		Regression Coefficients in Prestige Points	
Education:* Some High School	4.1	2.7	4.4	3.0
High School Grad.	6.4	5.6	6.7	5.8
Some College	10.4	9.2	9.9	8.9
College Grad.	24.3	18.0	24.4	17.8
Number of Jobs:* Second Job	-2.4	-3.9	-2.7	-3.9
Third Job	-5.0	-4.6	-3.9	-5.4
Fourth or Later Job	-2.1**	-13.6**	-	-
Fourth Job	-	-	-5.9	-4.0
Fifth or Later Job	-	-	-5.2**	-2.8**

*Base categories are no high schooling and being on first job at the time one or two years after entry.

**All coefficients except those with ** significant at .05

Neither an objective observer nor the individual himself could make an evaluation of how well he is faring in the job market without taking account of his level of skills. Another result of this pattern is that the overlap variance, that which cannot be uniquely assigned to either education or the number of jobs held, is negative in sign. An attempt to explain more of the variance by inserting the twelve interaction terms did not raise the total variance by a significant amount.

The introduction of the ending wage of the first job as a dependent variable in the above analysis yielded very much similar results. The wage at the end of the job and not at the start was used because the decision to make a job change is based on wage at the end of that job when the decision to leave is made. The result of this regression is found in Table 4. The number of jobs held was a better predictor of the ending wage of the first job than of its occupational prestige score. For whites, the number of jobs uniquely explained 2.1% of the total variance of 14.5% accounted for by education and the number of jobs while for blacks its unique contribution was 2.8% of a total of 11.9%.

A comparison of the ending wages of the first job showed that men with two jobs in this period had an average wage of $51 per month lower than those with only one job, that those with three jobs earned $44 per month less, and those with four jobs $88 less than men that held one job. For blacks the corresponding

TABLE 4

REGRESSION OF EDUCATIONAL ATTAINMENT (ONE AND TWO YEARS AFTER ENTRY) AND THE NUMBER OF JOBS HELD BETWEEN ENTRY AND THE POINTS ONE AND TWO YEARS AFTER ENTRY ON ENDING WAGE OF THE FIRST JOB AFTER ENTRY

	FOR INDEPENDENT VARIABLES MEASURED ONE YEAR AFTER ENTRY		FOR INDEPENDENT VARIABLES MEASURED TWO YEARS AFTER ENTRY	
	Variance in the Ending Wage of the First Job After Entry		Variance in the Ending Wage of the First Job After Entry	
	Whites	Blacks	Whites	Blacks
Zero-order Effects: Education	12.4%	9.1%	12.5%	9.1%
Number of Jobs	0.7	0.7	2.9	1.0
Unique Effects: Education	13.8	11.2	14.5	10.9
Number of Jobs	2.1	2.8	4.9	2.8
Overlap	-1.5	-2.1	-2.0	-1.9
Total Variance without Interaction	14.5	11.9	17.4	11.9
Unique Interaction Variance	1.9	1.5	3.1*	2.7
Total Variance with Interaction	16.4%	13.4%	20.5%	14.6%
	Regression Coefficients in dollars/month		Regression Coefficients in dollars/month	
Education:* Some High School	98	64	105	70
High School Grad.	125	96	138	96
Some College	162	177	170	172
College Grad.	249	198	250	190
Number of Jobs:* Second Job	-51	-53	-80	-50
Third Job	-44**	-83	-88	-61
Fourth or Later Job	-88**	-110**		
Fourth Job			-99	-32**
Fifth or Later Job			-82**	-102**

*Base categories are no high schooling and being on first job at the time one or two years after entry.

**All but ** figures significant at .05

figures were even larger, $53 less for two jobs, $83 less for three jobs, and $110 less for four or more jobs. The same negative overlap variance effect found for the prestige scores was found here and the interaction variance was insignificant.

A comparison of these sets of regressions showed the number of jobs to be a better predictor of the wage at the end of the job than of prestige. This implies that the decision to leave a job is more likely occasioned by an individual receiving wages that were too low, relative to his education, than by a prestige deficit. Deficits in these two dimensions are not independent of one another, the man with wages he considers too low is unlikely to be satisfied with the prestige of his job either.

In Table 3 and 4, the results of performing the above regressions with the numbers of jobs held in the first two years after entry as one of the independent variables are also presented. The results were very similar, with the impact of the job change variables defined at the later point in time accounting for more variance than was explained in the above regressions. These variables uniquely explained 5.3% of the variance in occupational prestige of the first job for blacks, compared to the unique contribution of 3.4% obtained with the variables defined at the point one year after entry.

What should be the effect of the numbers of jobs held on the occupational prestige scores and wages of the jobs held two years after entry? It should be very small. Assuming that the individuals who changed jobs in this period were those who felt that they could find better jobs and that these men were the ones who had poorer jobs at the start, we should expect that the number of jobs held to have little influence on their wages or prestige scores two years after entry. Table 5 shows the results of regressing the wages and prestige scores at this point on the number of jobs held in the first two years after entry and educational attainment.

The number of jobs held had a negligible effect on the prestige scores of the jobs held two years after entry. Controlling on educational attainment, the unique variances were 0.1% for whites and 0.4% for blacks. Similarly, blacks' wages were insignificantly affected by the numbers of jobs held, though there appeared to be two small trends: blacks with two or three jobs in this period had higher wages than those with just one job and those with four or more jobs had lower pay than this reference group. Whites with more than one job in the two years after entry ended up being significantly better paid at the two year point. Controlling on educational attainment the number of jobs held accounted for 3.6% of the variance. Individuals with two jobs in this period had wages averaging $10 per month more than those of the group still at its first job at this point; those with three jobs were ahead by $17, those with four jobs by $78, and men with five or more jobs earned $203 per month more than the reference group. This last result is quite unreliable, because of the small number of men with this many jobs.

TABLE 5

REGRESSION OF EDUCATIONAL ATTAINMENT TWO YEARS AFTER ENTRY AND NUMBER OF JOBS HELD BETWEEN ENTRY AND THE POINT TWO YEARS LATER ON THE PRESTIGE AND WAGE OF THE JOB HELD TWO YEARS AFTER ENTRY BY RACE

	Variance in Occupational Prestige of the Job Held 2 Years After Entry		Variance in the Wage of the Job Held Two Years After Entry	
	Whites	Blacks	Whites	Blacks
Zero-order Effects: Education	34.3%	24.0%	13.5%	19.0%
Number of Jobs	0.5*	0.1*	4.4	2.5
Unique Effects: Education	33.9	24.2	12.7	17.4
Number of Jobs	0.1*	0.4*	3.6	0.9*
Overlap	0.5*	-0.3*	0.8	-1.7
Total Variance without Interaction	34.4	24.4	17.1	19.9
Unique Effect of Interaction	1.4*	3.8*	8.7*	1.8*
Total Variance with Interaction	35.8%	28.1%	25.7%	21.7%
	Regression Coefficients in Prestige Points		Regression Coefficients in Dollars Per Month	
Education: Some High School	5.9	3.1	67	65
High School Grad.	7.3	7.2	97	102
Some College	11.3	9.8	153	202
College Grad.	25.4	20.7	233	206
Number of Jobs: Two	0.7*	-1.1*	10*	+28*
Three	0.0*	-1.2*	17*	+14*
Four	0.2*	-1.4*	78	- 8*
Five or More	0.7*	-2.8*	203	-51*

*All variances and regression coefficients are significant unless asterisked.

There is a real monetary payoff to "hustling", especially for whites. Blacks with two or three jobs in this period do get better pay, but not those with more jobs than that. The prestige benefits of job changing appeared to be negligible over this two year period, but there was no loss in prestige accompanying the monetary rewards of job changing. Our exploration of the consequences of changing jobs in the period around entry has focussed on the consequences of making changes in this period and very little on the mechanism and factors contributing to individual moves from one job to another. The next section deals with this problem by intensively examining the experiences of men as they change from their first job to a second one.

Predictors of Job Durations

In order to get some quantitative measure of the reasons why men left or remained at their jobs, a number of variables were regressed on the duration of the first job after entry. Should it be possible to predict these durations and so to describe the factors that contribute to the length of time spent on this job, it would simply be necessary to invert the conclusions in a description of the predictors of job changing. Only those respondents whose first jobs were not in the armed forces were included in the regression so that the involuntary periods of military service would not interfere with the discussion. Many variables were included in this regression, measuring the effect of nine separate factors. We now list these factors and include short discussions of the way in which they were operationalized.

1. We have seen that individuals with higher levels of educational attainment were likely to hold jobs for shorter periods of time than the more poorly educated. The pattern is found for both races but is not a very strong one. Education accounted for only about one percent of the variance in the duration of whites' first job (see Chapter 3, Table 6) and about two percent for blacks. Educational attainment was inserted into the regression in the form of four dummy variables that measured the difference between the no high school base category and the four higher categories.
2. Age at entry varied directly as educational attainment at entry. The relationship was much stronger for whites than for blacks, though even in this case about fifty percent of the variance in age at entry was explained by education. This variable was inserted into the duration equation in order to measure the extent to which age at entry might influence the durations of these jobs. We might conjecture that men entering at greater ages would have more resources and so be better able to go about finding new jobs, leading to shorter job durations.

3. Holding educational attainment constant, it is reasonable to expect individuals with better jobs, measured both in terms of occupational prestige and wage, to stay on those jobs for longer periods of time. In order to test this speculation the prestige score of the first job, its starting wage, and the change in wage in the course of the job were inserted into the regression equation. It is possible to use the ending wage of the first job in place of the change in wage variable for the two formulations are linearly dependent. Change in wage was used because it was felt that men would be more likely to respond to changes in their rates of pay than in the absolute value of their income at the end of the job.

4. In previous chapters we have shown that married men were likely to hold their jobs for longer periods of time than men that were single. A dummy variable with the value one for married respondents and zero for all others was entered in the regression. The few divorced, widowed, and separated men were included in the unmarried category. The number of children of the respondent was also included (it had the value zero for single men). One might expect that respondents with children would be less likely to change jobs, though the small number of men with children and the high correlation of this variable with marital status clouds this prediction. Both of these variables were

measured as of the last month of the first job, the assumption being that the decision to leave a job was made at the end of that job.

5. Some rather poor data were collected describing whether or not men left their jobs voluntarily and whether or not they knew of or had already found new jobs at the time when they left their first jobs. For each of these three dummy variables there were very large numbers of missing cases. The "pairwise present" algorithm in the regression routine means that we have assumed the relationship between these variables and all the others was the same for the individuals for which the values were known as for those where they were missing. This assumes that there was no measurement error. The large numbers of missing cases for the variable measuring whether the first job was left involuntarily and the small numbers of men that admitted they had been fired or laid off (around fifteen percent) suggests that there is considerable measurement error. The bias appears to be in the direction of understatement of the numbers of jobs lost through firings and lay-offs. Unfortunately there is no way of predicting the direction of the bias in the final regression results.

6. Four variables were inserted to measure the effect of some of the circumstances under which men found their second jobs. The means of finding this job was entered in the form of two

dummy variables that distinguished those who found these jobs by active means (through advertisements, agencies, and direct application) and by promotions from men in the base category of second jobs found through family and friends. A third variable was defined in order to indicate whether or not a geographic move of ten miles or more (and unconnected with military service) was made in the period between the end of the first job and the start of the second. Making such a move was negatively associated with having or knowing of a job opening at the end of the first job. Another variable, the distance of this move which had the value zero for men that did not move, was entered in order to measure the effect of the distance of this move.

7. The length of time the respondent was unemployed between his first and second jobs was also inserted in the regression. Longer periods of unemployment at this time were associated with involuntary termination of the first job. Twice as large a proportion of the whites who experienced one month or more of unemployment had left their jobs involuntarily than was the case for the rest of the sample. Thirty percent of whites who were unemployed for a month or more at the end of their first jobs but only about fifteen percent of those that were not unemployed at all had been fired or laid off their first jobs. The difference was even larger for blacks. This suggests that unemployment during this

period would be associated with shorter jobs, often brought to a close unexpectedly by a firing or a lay-off. Two variables, one equal to the period of unemployment in months and the other taking on the value one when the man was unemployed for a month or more were used, in order to deal with the potentially non-linear effect of this variable.

8. A sizeable proportion of the men found their second jobs in the armed forces. Many of these men were drafted or enlisted under threat of the draft and so we should expect to find that men whose second jobs were in the armed forces would have shorter job durations than those whose second jobs were in the civilian labour force. This regression makes it possible to test this hypothesis and to estimate the quantitative magnitude of this pull into the armed forces, holding other factors constant.

9. The last set of variables measured the difference between the occupational prestige scores of the first two jobs and the difference between the wage at the end of the first job and that at the start of the second job. These variables are intended to represent a pulling factor indicative of the benefits of changing jobs, in prestige and wage terms. Where the individual entered the armed forces as a second job, the starting wage of the second job and the change in wages could not be entered in the regression.

This completes the list of variables included in the regression. Table 6 contains a summary of all these variables. We must deal with one final methodological problem before passing on to the analysis of the results. A small percentage of the population had no second jobs after entry, they stayed at the jobs they obtained after entry until the point at which they were interviewed. Their jobs lasted from entry to the time of the interview. Unfortunately we have no real idea of the actual durations of these jobs. It is logical to assume that a job held continuously from the entry point will last considerably beyond the point of the interview. Most of the men in this group held these jobs for ten or more years. Excluding these men from the population, they constitute 2.6% of the whites and 2.6% of the blacks, would tend to bias the sample. An arbitrary solution was adopted: the durations of these jobs were doubled, as were the magnitudes of the change in pay they experienced during this job. This seemed to make sense and yielded a significantly better fit for the regression as a whole, about ten percent of the variance better for whites, fifteen percent better for blacks.

The results of this regression are found in Table 7. The twenty-two variables accounted for an astonishing proportion of the variance, 63.2% for whites and 64.8% for blacks! In each case, four of the variables accounted for ninety percent of the explained variance. In marked contrast to the wage and prestige

TABLE 6

FACTORS IN THE ANALYSIS OF THE DURATION OF THE FIRST JOB

FACTOR	VARIABLES USED	COMMENT
1. Educational Attainment	4 Dummy variables for some high school, high school graduation, some college and college graduation	The four variables show the difference in duration from that of individuals in the lowest category, no high school
2. Age at Entry	Age at entry in months	
3. Quality of the First Job	Occupational prestige of the job, starting wage of the job, change in wage during that job	It is possible to replace the last variable with the ending wage of the first job. The two formulations are mathematically identical.
4. Family Factors	The marital status and number of children in the family of the respondent. Both are measured at the end of the first job, at the month the respondent left his first job	Marital status is a dummy variable having the value 1 if the individual is married at the end of the first job, and zero in all other cases (including divorced and separated and widowed statuses). The number of children refers to the family of a married respondent and not to his family of origin.
5. "Circumstances" of leaving first job	Three dummy variables which describe (a) if he was involuntarily separated from the job, (b) if he had a new job at the time he left his first job, and (c) if he knew of another job at the time he left his first one	The last two variables are mutually exclusive
6. "Circumstances" of finding the second job	Three dummy variables indicating whether the second job was found by active means, whether the job was obtained through a promotion, and whether or not a move of over nine miles was made between the end of the first job and the start of the second. Also a variable measuring the distance of the move in miles was entered in this group	Active means of finding a job include through advertisements, agencies (public and private), and by direct application
7. Unemployment (between first and second jobs)	A dummy variable indicating the effect of being unemployed for one or more months, a second variable was just the number of months of unemployment	The two variables are used because of the very peaked distribution of the unemployment variable
8. The military	A dummy variable indicating whether the second job was in the armed forces	This variable provides a measure of the extent to which first jobs are shortened because men were drafted or enlisted
9. Change in the occupational prestige and wage between the end of the first job and the start of the second job	One variable is the change in prestige between the two jobs, the second is the difference between the ending of the first job and the start of the second job	If either of the variables required to make up each of these is missing then the variable is not calculated

TABLE 7

REGRESSION OF MANY FACTORS ON THE DURATION OF THE FIRST JOB AFTER ENTRY, BY RACE. INDIVIDUALS WHOSE FIRST JOBS WERE IN THE ARMED FORCES WERE EXCLUDED FROM THE CALCULATION

	Regression Coefficients		Standardized Regression Coefficients		Unique Variance (%)			
	Whites	Blacks	Whites	Blacks	Whites		Blacks	
Education:								
Some high school	-13.4	- 9.2	-.095*	.063	.43)	.61%	.21)	1.31%
High school grad.	-16.8	-12.9	-.150*	-.085**	.58)		.27)	
Some college	-20.2	-42.2	-.100	-.138*	.37)		1.03)	
College grad.	-28.8	-11.1	-.160	-.027	.39)		.04)	
Age at Entry	-.121	-.331	-.071	-.142*	.10		.77*	
Quality of 1st Job:								
Prestige score	.765	-.653	.181*	-.089**	1.08)	45.23%	.35)	43.63%
Starting wage	.0120	.0890	.029	.156*	.05)		1.18)	
Change in wage	.219	.490	.696*	.815*	41.89)		42.84)	
Family Factors:								
Marital Status	14.3	29.0	.098*	.172*	.69)	0.74%*	2.38)	2.60%*
Number of Children	2.4	11.3	.008	.049	.00)		.18)	
Circumstances of Leaving 1st Job								
Involuntary	-11.0	4.7	-.066**	.025	.32)	1.02%*	.05)	0.24%*
Had new job	- 3.4	-12.1	-.030	-.059*	.06)		.41)	
Knew of new job	10.4	- 8.5	+.071*	-.025	.10)		.15)	
Circumstances of Finding 2nd Job								
Active means	- 8.4	-14.4	-.074*	-.103	.48)	0.52%**	.88)	1.39%*
Promotion	- 0.2	6.2	-.001	.021	.00)		.04)	
Moved	- 0.7	- 2.9	-.004	-.016	.00)		.01)	
Distance of Move	-.00011	-.0104	-.001	-.032	.00)		.05)	
Unemployment								
In months	-.398	.212	-.046	.026	.15)	1.14%*	.05)	0.26%
One month or more	-14.5	-11.7	-.083*	-.086*	.48)		.26)	
2nd Job in Military?	- 7.7	2.6	-.061**	.015	.29		.01	
Change Between 1st and 2nd Job								
In occupational prestige	.066	-.067	.146*	-.096*	1.08)	3.51%*	.45)	8.72%*
In wage	.062	.192	.158*	.400*	1.91)		7.44)	
Regression Constant	35.3	94.51						
Total Variance	63.22%	64.83%						
Number of Cases	709	618						

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

regressions, there is a striking similarity between the white and black regression equations. While a few variables accounted for most of the variance, many of the effects suggested above had some impact. Twelve of the twenty-two regression coefficients for whites and eleven of those for blacks were statistically significant (at .05). Before returning to an overview of the regression as a whole we will consider each of the nine groups of variables in some detail. Separate tables summarizing the effects of these factors are presented in most cases so that the reader will not have constantly to refer back to Table 7.

1. Educational Attainment at Entry (Table 8)

Educational attainment at entry was negatively correlated with the duration of the first job at the zero-order level and this relationship still holds when all the other variables are held constant. Men with no high school had first job durations longer than those in any of the other educational attainment groups. For whites, men with some high school had jobs lasting an average of 13.4 months less than the reference group (men with no high school), high school graduates averaged 16.8 months less, men with some college 20.2 months less, and college graduates 28.2 months less. For blacks the results were quite similar, with high school and college graduates and men with some high school all averaging about eleven months less in first job duration than the base group with no high school. Blacks with some college averaged a remarkable 42.2 months less than this base group.

TABLE 8

THE IMPACT OF EDUCATIONAL ATTAINMENT AT ENTRY ON THE DURATION OF THE FIRST JOB AFTER ENTRY. ALL THE REGRESSION ESTIMATES ARE TAKEN FROM THE EQUATION WITH ALL THE OTHER VARIABLES CONTROLLED

	VARIABLE	REGRESSION COEFFICIENTS	STANDARDIZED REGRESSION COEFFICIENTS	UNIQUE VARIANCE (%)	CORRELATION WITH DURATION	MEAN or % IN THIS CATEGORY	STANDARD DEVIATION	UNITS
WHITES	Some High School	-13.4	-.095*	.43	-.029	19.3%	1.5%	None
	High School Graduation	-16.8	-.150*	.58	-.064	43.9%	1.9%	None
	Some College	-20.2	-.100	.37	.002	8.3%	1.0%	None
	College Grad.	-28.8	-.160	.39	.027	10.7%	1.2%	None
BLACKS	Some High School	- 9.2	-.063	.21	.005	33.0%	1.9%	None
	High School Graduation	-12.9	-.085**	.27	-.113	29.1%	1.8%	None
	Some College	-42.2	-.138*	1.03	-.054	5.3%	0.9%	None
	College Grad.	-11.1	-.027	.04	-.011	2.9%	0.7%	None

	Zero-order Variance	Unique Variance
Whites..........	1.02%*	0.61%*
Blacks..........	2.54%*	1.13%*

*Different from zero at the .01 level of significance.

**Different from zero at the .05 level of significance, but not at the .01 level.

The effect was not a very strong one. At the zero-order level, educational attainment at entry accounted for 1.0% of the variance in whites' first job duration and 2.5% for blacks and the unique effects were only 0.6% for whites and 1.1% for blacks. Both the unique variances were statistically different from zero at the .01 level. It is clear that men with more education experienced more job mobility in this period. That this mobility should increase with increasing education suggests that more highly skilled individuals had more opportunities in the job market.

2. Age at Entry (Table 7)

Men that entered the labour force at later ages tended to hold their first jobs for shorter periods of time, holding all other factors constant. This fits in with the theory that identifies men with higher levels of skill and more resources as likely to change jobs more often. Each additional year of age at entry lead to a decline in the duration to a first job of a month and half for whites and four months for blacks. Neglecting the effect of educational attainment, we find that a black high school graduate entering at age eighteen should have a first job lasting sixteen months longer than a college graduate that entered four years later. For whites the effect would only be a third as large, though in the same direction. This variable uniquely accounts for 0.8% of the variance for blacks compared to an insignificant 0.1% for whites.

3. Quality of the First Job After Entry (Table 9)

Of the three variables in this group, occupational prestige of the first job, its starting wage, and the change in wage during the job, the third was by far the most important. Individuals who experienced wage increases in the course of their first jobs had a strong tendency to stay on these first jobs for longer periods of time. The variance accounted for by this one variable is astonishing: change in the wage of the first job uniquely explained 41.9% of the variance in the first job duration for whites and 42.8% for blacks. For each dollar per month of wage increase we predict whites jobs will last an additional fifth of a month and for blacks an additional half month. The same increase in wage holds blacks at their jobs for a period two and a half times as long as whites. The zero-order correlations between duration and change in wage were 0.721 for whites and 0.674 for blacks.

Blacks experienced an average wage increase of $41.4 per month during the first job, compared to $45.4 for whites. In neither case was more than two percent of the variance in change in wage explained by educational attainment. The variances in this variable were $114.5 for blacks and $176.7 per month for whites. In both cases the distribution was highly skewed; there was a large peak near zero, few cases less than zero, and a number greater than the mean that stretched into a long positive tail.

TABLE 9

THE IMPACT OF QUALITY OF THE FIRST JOB AFTER ENTRY ON THE DURATION OF THAT JOB. ALL THE REGRESSION ESTIMATES ARE TAKEN FROM THE EQUATION WITH ALL THE OTHER VARIABLES CONTROLLED

	VARIABLE	REGRESSION COEFFICIENTS	STANDARDIZED REGRESSION COEFFICIENTS	UNIQUE VARIANCE (%)	CORRELATION WITH DURATION	MEAN or % IN THIS CATEGORY	STANDARD DEVIATION	UNITS
WHITES	Occupational Prestige Score	.765	.181*	1.08	.153	29.1	13.1	prestige points
	Starting Wage	.0120	.029	0.05	-.052	242.6	135.8	dollars/mo.
	Change in Wage	.219	.696*	41.89	.721	45.4	176.7	dollars/mo.
BLACKS	Occupational Prestige Score	-.653	-.089**	0.35	.021	23.8	9.4	prestige points
	Starting Wage	.0890	.156*	1.18	-.086	199.8	120.8	dollars/mo.
	Change in Wage	.490	.815*	42.84	.674	41.4	114.5	dollars/mo.

	Zero-order Variance	Unique Variance
Whites..........	52.83%*	45.23%*
Blacks..........	48.27%*	43.63%*

*Different from zero at the .01 level of significance.

**Different from zero at the .05 level of significance, but not at the .01 level.

The effects of the other two variables in this group were rather small. Whites with higher prestige scores tended to have longer jobs while blacks with higher prestige scores tended to have shorter ones. For each ten points in occupational prestige, the equation predicted that white job durations increased by seven and one half months while those of blacks decreased by six and a half months. The unique variance of this variable was 1.1% for whites and 0.4% for blacks. The starting wage of a job varied directly with the duration of that job, though for whites the effect was of negligible magnitude. The starting wage uniquely explained 1.2% of the variance in first job duration for blacks, that duration increased by about nine months for each hundred dollars per month starting salary. For both races the simple correlation between starting wage was negative but the sign of the partial correlation was positive.

These three variables accounted for 52.8% of the variance in whites' durations at the zero-order level, 45.2% uniquely. For blacks the corresponding figures were 48.3% and 43.6%. We should note that the most important determinant was a wage measure and not a prestige variable and that individuals responded not to the absolute level of wages but to changes in that level. If educational attainment sets a quite easily reached limit on the occupational prestige of an individual, then the only way men have to define better jobs or to decide whether or not to remain with a given job is by way of wages. Furthermore the stronger impact of the prestige score for whites suggested that blacks are even more restricted in the prestige gains they can hope to make. We return to the relative roles of the prestige and wage variables later in this analysis.

4. Family Factors (Table 10)

Individuals who were married and those with children were less likely to have their first job after short periods of time. Together the two variables uniquely explained 10.6% of the zero-order variance in duration for whites, 13.8% for blacks. Holding all the other variables constant, the contributions were only 0.8% for whites and 2.6% for blacks. In neither case was the effect of the number of children statistically significant. This was because very small numbers of individuals had any children at all at such an early point in their careers, the whites averaged only 0.02 children each at the end of the first job, compared to 0.03 for blacks.

Marital status had a stronger influence on blacks than whites. Black men who were married had first job durations averaging twenty-nine months longer than their single counterparts, for whites the difference was fourteen months. The large difference between the zero-order and unique variances explained by marital status was due to the high correlation between this variable and several others, specifically with educational attainment and change in wage. For both races we find that being married at the end of the first job was

TABLE 10

THE IMPACT OF FAMILY FACTOR ON THE DURATION OF THE FIRST JOB AFTER ENTRY. ALL THE REGRESSION ESTIMATES ARE TAKEN FROM THE EQUATION WITH ALL THE OTHER VARIABLES CONTROLLED

	VARIABLE	REGRESSION COEFFICIENTS	STANDARDIZED REGRESSION COEFFICIENTS	UNIQUE VARIANCE (%)	CORRELATION WITH DURATION	MEAN or % IN THIS CATEGORY	STANDARD DEVIATION	UNITS
WHITES	Marital Status	14.3	.098*	.69	.323	17.7%	1.4%	None
	Number of Children	2.4	.008	.00	.051	.02	.18	children
BLACKS	Marital Status	29.0	.172*	2.38	.357	21.4%	1.6%	None
	Number of Children	11.3	.049	0.18	.160	.03	.30	children

	Zero-order Variance	Unique Variance
Whites..........	10.55%	0.74%
Blacks..........	13.77%	2.60%

*Different from zero at the .01 level of significance.

**Different from zero at the .05 level of significance, but not at the .01 level.

significantly and negatively related to the probability of entering the armed forces at the end of the first job.

5. Circumstances of Leaving the First Job (Table 11)

The average first job durations of whites that left their first jobs involuntarily were eleven months shorter than those of men in the rest of the sample, when all the other factors are held constant. The unique variance of this variable was only 0.3% for whites (significantly different from zero at .05 only). Thus men that were fired or laid off did have unexpectedly short first jobs. The variable had no measureable impact on blacks' durations. Unfortunately the large numbers of missing cases did not allow an accurate assessment of the impact of this variable.

At the time at which they left their first jobs, 38.2% of the whites and 27.6% of the blacks said they had already found new jobs while another 16.9% of the whites and 17.4% of the blacks said they "knew of" second jobs. So around half of the men left their first jobs without knowing of a job to move into. Yet the fact that only 11.6% of the whites and 16.4% of the blacks were unemployed for a period of a month or more suggests that most of the remaining half of the population knew how to find jobs pretty quickly. The two dummy variables measuring whether or not the respondent had a job or knew of one, in comparison to those with no definite plans had essentially no

TABLE 11

THE IMPACT OF CIRCUMSTANCES OF LEAVING THE 1ST JOB ON THE DURATION OF THE FIRST JOB AFTER ENTRY. ALL THE REGRESSION ESTIMATES ARE TAKEN FROM THE EQUATION WITH ALL THE OTHER VARIABLES CONTROLLED

	VARIABLE	REGRESSION COEFFICIENTS	STANDARDIZED REGRESSION COEFFICIENTS	UNIQUE VARIANCE (%)	CORRELATION WITH DURATION	MEAN or % IN THIS CATEGORY	STANDARD DEVIATION	UNITS
WHITES	Involuntary Separation	-11.0	-.066**	.32	-.110	12.3%	1.2%	None
	Had new job at time of leaving first job	- 3.4	-.030	.06	.070	38.2%	1.8%	None
	Knew of new job at time of leaving first job	10.4	.071*	.10	.082	16.9%	1.4%	None
BLACKS	Involuntary Separation	4.7	.025	.05	-.006	15.6%	1.5%	None
	Had new job at time of leaving first job	-12.1	-.059*	.41	-.060	27.6%	1.8%	None
	Knew of new job at time of leaving first job	- 8.5	-.025	.15	+.081	17.4%	1.5%	None

	Zero-order Variance	Unique Variance
Whites..........	2.32%	1.02%
Blacks..........	0.82%	0.24%

*Different from zero at the .01 level of significance.
**Different from zero at the .05 level of significance, but not at the .01 level.

impact on the durations of these jobs. For blacks there was a slight tendency for men with jobs to move into or have shorter job durations.

6. Circumstances of Finding the Second Job (Table 12)

Only one of the four variables measuring the circumstances of finding the second job had any measureable impact on the duration of the first job. Men who found their second jobs by active means, that is through advertisements, agencies, and direct application, were likely to have spent less time on their first jobs. A fairly large number of individuals were in this group, 41.1% of the whites and 42.6% of the blacks found their second jobs in this way. The more gregarious means of job finding decreased job durations by an average of 8.4 months for whites and 14.4 months for blacks. This one variable uniquely explained 0.5% of the variance in duration for whites, 0.9% for blacks. Thus it appears that men that used means of finding jobs that required more initiative, in comparison to those using family and friends to find their second jobs, tended to leave their first jobs sooner than others.

Finding jobs by promotion, making a geographic move in the time between entry and the start of the first job and moving longer distances had negligible effects on the job durations. There was a weak tendency for individuals who made a move in this period to experience more unemployment between their first two jobs.

TABLE 12

THE IMPACT OF CIRCUMSTANCES OF FINDING THE 2ND JOB ON THE DURATION OF THE FIRST JOB AFTER ENTRY. ALL THE REGRESSION ESTIMATES ARE TAKEN FROM THE EQUATION WITH ALL THE OTHER VARIABLES CONTROLLED

	VARIABLE	REGRESSION COEFFICIENTS	STANDARDIZED REGRESSION COEFFICIENTS	UNIQUE VARIANCE (%)	CORRELATION WITH DURATION	MEAN or % IN THIS CATEGORY	STANDARD DEVIATION	UNITS
WHITES	Active Means	- 8.4	-.074*	.48	-.090	41.1%	1.8%	none
	Promotion	- 0.2	-.001	.00	.139	11.7%	1.1%	none
	Moved	- 0.7	-.004	.00	-.029	11.3%	1.1%	none
	Distance Moved	-.00011	-.001	.00	.005	59.0	277.1	miles
BLACKS	Active Means	-14.4	-.103	.88	-.068	42.6%	2.0%	none
	Promotion	6.2	.021	.04	.181	5.8%	0.9%	none
	Moved	- 2.9	-.016	.01	.010	16.2%	1.5%	none
	Distance Moved	-.0104	-.032	.05	.001	65.2	212.5	miles

	Zero-order Variance	Unique Variance
Whites..........	2.78%	0.52%
Blacks..........	3.41%	1.39%

*Different from zero at the .01 level of significance.

**Different from zero at the .05 level of significance, but not at the .01 level.

7. Unemployment Between the Two First Jobs (Table 13)

Individuals experienced relatively little unemployment in the period between the two first jobs, 88.4% of the whites and 83.6% of the blacks were scored zero for the number of months unemployment. Two variables were inserted in the regression to measure the effect of unemployment in the transitional period between the first two jobs. Only the dummy variable indicating whether this unemployment lasted a month or more had any effect. Holding other factors constant whites that experienced some unemployment had first jobs 14.5 months shorter than those with no such unemployment. For blacks the difference was 11.7 months. The unique variances of this variable were 0.5% and 0.3% for whites and blacks respectively. While the direction of this logic may seem curious, it appears that men entering the labour market without a job in prospect had generally left their first jobs prematurely.

8. Military Service as a Second Job (Table 7)

Entering the armed forces as a second job was negatively associated with the duration of the first job, for whites the zero-order correlation coefficient was -0.111 and for blacks the value was -0.142. A total of 26.4% of the whites found their second jobs in the armed forces, compared to 20.1% of the blacks (these proportions are based on the total numbers of individuals whose first jobs were not in the armed forces). Insertion of all the other variables as controls totally wiped

TABLE 13

THE IMPACT OF UNEMPLOYMENT BETWEEN FIRST TWO JOBS ON THE DURATION OF THE FIRST JOB AFTER ENTRY. ALL THE REGRESSION ESTIMATES ARE TAKEN FROM THE EQUATION WITH ALL THE OTHER VARIABLES CONTROLLED

	VARIABLE	REGRESSION COEFFICIENTS	STANDARDIZED REGRESSION COEFFICIENTS	UNIQUE VARIANCE (%)	CORRELATION WITH DURATION	MEAN or % IN THIS CATEGORY	STANDARD DEVIATION	UNITS
WHITES	Effect Per Month	-.398	-.046	.15	-.064	1.13	6.40	months
	Unemployed 1 month or more	-14.5	-.083*	.48	-.125	11.6%	1.2%	none
BLACKS	Effect Per Month	.212	.026	.05	.014	1.73	8.58	months
	Unemployed 1 month or more	-11.7	-.086**	.26	-.068	16.4%	1.5%	none

	Zero-order Variance	Unique Variance
Whites..........	1.57%	1.14%
Blacks..........	0.72%	0.26%

*Different from zero at the .01 level of significance.

**Different from zero at the .05 level of significance, but not at the .01 level.

out the impact of this variable on the blacks and decreased it considerably for whites. Whites whose second jobs were in the armed forces had first job durations averaging 7.7 months less than those of men whose second jobs were in the civilian labour force. The unique variance only amounted to 0.3%. Whites who entered the military did appear to get "pulled" out of their first jobs, however the effect was very small indeed. This suggests that much the same forces are at work for men who go into the armed forces and those who do not and that jobs in the armed forces were very like civilian jobs.

9. Changes in Wages and Prestige Between the End of the First and the Start of the Second Job (Table 14)

The last group of two variables measured the changes in occupational prestige and wage experienced in the transition between the first and the second jobs after entry. Whites experienced an average increase of 2.4 prestige points and $32.8 per month in salary in making this change, compared to increments of 2.4 prestige points and $40.7 per month for blacks. While blacks had significantly lower prestige scores and wages on their first jobs than whites, they gained as much in finding the second job. These variables had a sizeable impact on the durations of first jobs for men of both races. These two sorts of changes appear to constitute a measure of the "pull" of the second job.

TABLE 14

THE IMPACT OF CHANGE IN PRESTIGE AND WAGE BETWEEN FIRST TWO JOBS ON THE DURATION OF THE FIRST JOB AFTER ENTRY. ALL THE REGRESSION ESTIMATES ARE TAKEN FROM THE EQUATION WITH ALL THE OTHER VARIABLES CONTROLLED

	VARIABLE	REGRESSION COEFFICIENTS	STANDARDIZED REGRESSION COEFFICIENTS	UNIQUE VARIANCE (%)	CORRELATION WITH DURATION	MEAN or % IN THIS CATEGORY	STANDARD DEVIATION	UNITS
WHITES	Change in Prestige	.066	.146*	1.08	.018	2.44	12.20	prestige points
	Change in Wage	.062	.158*	1.91	.174	32.8	142.2	dollars/mo.
BLACKS	Change in Prestige	-.067	-.096*	.45	-.020	2.36	9.91	ptestige points
	Change in Wage	0.92	.400*	7.44	.004	40.7	143.7	dollars/mo.

	Zero-order Variance	Unique Variance
Whites..........	3.01%	3.51%
Blacks..........	.04%	8.72%

*Different from zero at the .01 level of significance.

**Different from zero at the .05 level of significance, but not at the .01 level.

The wage changes had much more of an impact on the duration than the prestige difference. Larger increments in wages were associated with longer first job durations. For each ten dollars per month of increase in wage, whites held their first jobs for an additional 0.6 months and blacks durations increased by 1.9 months. The small number of individuals unemployed for even as long as a month suggests that most men had a fairly good knowledge of their expected income gains in changing jobs and that men stayed on their first jobs until they could find better paying ones to switch to. The wage increase uniquely explained 7.4% of the variance in first job duration for blacks, only 1.9% for whites.

For blacks the zero-order correlation between duration and the wage difference was almost exactly zero and the partial correlation, with all the other variables inserted as controls, was 0.436. This difference was apparently due to the strong negative correlations between the wage increment and the starting wage of the first job (-0.567) and with the change in wage during the first job (-0.396). These negative correlations suggest that there is a barrier that blacks bump up against in trying to obtain higher wages. For whites this inverse correlation effect is far weaker as the simple correlation between the wage increment between jobs and the starting wage was only -0.374 while its correlation with changes in wage during the first job was -.004. Blacks regress toward the mean far more than whites!

A similar pattern exists for both whites and blacks with respect to prestige increments between the first and second jobs. The change in wage had a zero-order correlation of -0.563 with the prestige of the first job for whites compared to a value of -0.572 for blacks. For blacks longer first job durations were associated with drops in prestige between the first two jobs. So that in waiting for pay increases in making this transition blacks end up with lower prestige scores! For whites, the pattern is more coherent: longer first jobs are associated with larger increments in occupational prestige between the first and second jobs. The unique variances attributed to this variable were 1.1% for whites and only 0.5% for blacks. Together the wage and prestige differences explained 3.5% of the variance in first job durations for whites, 8.7% for blacks. Both these estimates were larger than the zero-order effects because of the negative correlations cited above. The zero-order effect of the two variables was 3.0% for whites and a remarkably low 0.04% for blacks!

Once again we find that the wage increment had a far more important impact on the job duration than the prestige difference. As was the case with the effect of the occupational prestige of the first job, the prestige measure here had more impact on whites' durations. Blacks stayed on their first jobs three times as long as whites in order to achieve the same wage increment. Significantly, there appeared to be a wage barrier for blacks (and only slightly for whites) that made it far more difficult for blacks with high initial wages to further improve their income.

Ninety Percent of the Variance (Table 15)

The presentation has included a perhaps bewildering array of variables. For both whites and blacks it was possible to account for ninety percent of the explained variance using only four variables. The four "best" variables explained 58.2% of a total of 63.2% of the variance for whites and 59.6% out of 64.8% for blacks. These four variable regressions are presented in Table 15.

Of the four variables with the most explanatory power, three of them, change in wage during the first job, change in wage between the first and second jobs, and marital status, were common to the regressions for both races. In both cases these were respectively the first, second, and fourth variables to enter the equation using a stepwise procedure (forward selection only). For whites the third variable was the unemployment dummy variable and for blacks it was age at entry. The change in wage during the first job uniquely explained 44.4% of the variance for whites and 44.2% for blacks. The regression coefficients were rather different, each dollar per month of change in wage increased the duration of the first job for whites by 0.22 months and for blacks by 0.46 months. This suggests that smaller increases in wage were required to retain the

TABLE 15

REGRESSION OF THE VARIABLES EXPLAINING 90% OF THE TOTAL VARIANCE IN THE DURATION OF THE FIRST JOB

	VARIABLE	REGRESSION COEFFICIENTS	STANDARDIZED REGRESSION COEFFICIENTS	UNIQUE VARIATION	SIMPLE CORRELATION WITH DURATION	MEAN	STANDARD DEVIATION	UNITS
WHITES	Change in wage during first job	.220	.697	44.39	.721	45.4	176.7	dollars/mo.
	Change in wage between start of first and end of second job	.0720	.184	3.34	.174	32.8	142.2	dollars/mo.
	Unemployed 1 mo. or more	-19.2	-.111	1.22	-.125	11.6%	1.2%	none
	Marital Status	15.3	.105	1.00	.323	17.7%	.38	none
BLACKS	Change in wage during first job	.455	.757	44.15	.674	41.4	114.5	dollars/mo.
	Change in wage between end of first and start of second job	.149	.310	8.07	.004	40.7	143.7	dollars/mo.
	Age at Entry	-.428	-.183	3.22	-.091	205.8	29.5	months
	Marital Status	32.0	.191	3.20	.357	21.4%	1.8%	none

loyalty of blacks--this was perhaps a function of the differences between the pools of jobs available to whites and blacks.

Each dollar of change in wage between the end of the first and the start of the second job added .07 months to the duration of whites' jobs, 0.15 months to those of blacks. Again the magnitude of the wage effect, per dollar of increase, was much larger for blacks. An analogous pattern is found for the marital status variable. Blacks who were married at the end of their first jobs spent an average of 32 months longer on these jobs than single men, holding constant only these three variables. The equivalent coefficient for whites was only 15.3 months. This marital status variable uniquely explained 3.2% of the variance for whites but only 1.0% for blacks. The occupational mobility of blacks was more severely hampered by marriage than that of whites.

Whites who were unemployed for a month or more between their first and second jobs had first job durations averaging 19.2 months less than the group that found second jobs within a month of ending their first ones. Age at entry, the third variable for blacks, reduced first job durations by about five months per year at age of entry. Its unique variance was 3.2%. There was little multicolinearity among the independent variable for both whites and blacks. For whites the four variables unique contributions summed to 49.9% of the variance of a total of 58.2%. The corresponding figures were 58.6% of a total of 59.6% for blacks.

Summary

We were unable to find any results comparable to these in the labour force literature. No one seems ever to have looked at things in this way. The results seem enormously interesting and we were able to arrive at adequate answers for the three main questions that motivated the discussion.

1. The concept of characteristic job durations, in the sense that individuals could be classified according to their tendencies to hold jobs for longer or shorter periods, does not fit the behavior of men in this sample. Several empirical attempts to discover the existence of such a variable were fruitless.
2. While there was little relationship between the durations of the jobs of an individual, it is clear that job changes did not occur in an accidental fashion. Using a number of factors, it was possible to explain around sixty-five percent of the variance in the duration of the first job after entry. The principal determinant of whether or not an individual stayed on his job was the extent to which he obtained raises in pay in the course of this job. The impact of prestige considerations was negligible compared to the wage effects. This suggests that the mobility process is mainly based on an attempt to maximize wages. Perhaps this is because an individual with a fixed level of educational attainment has very little scope to improve

the prestige level of the job he holds. Situational factors like marital status also play a part in determining whether or not an individual will move. Behavior during this period gives the impression of great economic rationality.

3. There appeared to be real benefits to changing jobs. Men whose first jobs had lower prestige scores or wages than they could expect on the basis of their educational attainment quickly moved out of these poorer jobs into ones that were closer to their legitimate expectations. Men that changed jobs frequently in the first two years after entry had wages appreciably greater than those of men who stayed on their first jobs throughout the first two years after entry. However no gains in occupational prestige were achieved in this way.

CHAPTER VIII

ENTRY AND CAREERS

Previous parts of this analysis have dealt with the jobs men held in the first two years after entry. While labor force activity in this short period was meaningfully related to a number of individual characteristics, we have not as yet dealt with the long term consequences of what happens to men at entry. In a crude fashion, a number of studies have proven that such a connection exists. The evidence usually cited is that there are large correlations between the occupational prestige scores of the first job after entry and those of jobs held later in a man's career. Blau and Duncan find that for a cohort comparable to the one used here, the simple correlation between occupational prestige at entry and that at the time of interview was 0.584. However, the partial correlation, controlling on educational attainment at entry, was much smaller, only 0.335. The data here are both more complex and more complete than any previously gathered. Many variables have been constructed to describe the process of entry into the labour force. The purpose of this last chapter of the analysis is to determine what impact the mode of entry had on individuals' subsequent careers.

The task is quite complex. To start, it is necessary to arrive at some parameters that describe occupational "outcomes". Whatever measures are chosen to describe men's careers after entry, some of their other characteristics, like educational attainment and marital status and the place of residence, will also undergo changes in the same period. As was the case in the earlier parts of this discussion, the principle difficulty lies in distinguishing among competing effects and the main mode of analysis will be multiple regression. Significant occupational changes occurred in the first two years after entry and it is necessary to examine the impact of these different parts of the entry period on later careers.

The chapter starts with a description of the educational attainment, occupational prestige scores and wages of individuals later in their careers, and of the relationships between these variables at this later point. An examination of the impact of military service and of the frequency of job changing is then presented. We conclude with an extensive discussion of the relationship between entry into the labour force, the occupational prestige scores and wages of later jobs.

Which Outcome?

What constitutes a good measure of occupational outcome? Aside from the diffuse requirement of reasonableness, there is only one theoretical criterion, the outcome should be spaced far enough away from the time at which men entered the labour force to give some real indication of later occupational achivement. The principle limitation is not theoretical but is imposed on us by the fact that the men in the sample were between thirty and thirty-nine years of age at the time of the interview. There are two ways of defining outcomes that fit the above conditions; one would be to take the job each man held at a specific age while the other is to select the job held a fixed number of years after entry. The former of these alternatives compares among respondents of the same age while the latter controls on the amount of labour force experience each man had. Neither is a demonstrably superior method.

The decision made was to control on labour force experience rather than to take individuals at a fixed age. Selection of the point ten years after entry seemed a reasonable choice, but proved unfeasible. Individuals with college degrees averaged about twenty-two years of age when they entered the labour force, and so ten years later their average age was thirty-two. Approximately a third of the college graduates were interviewed at a point before they had ten years experience in the work force. Choosing this point would have biased the sample by including sizeable numbers of college graduates before the ten years were up. By using the point eight years after entry it was possible to reduce the numbers of men with insufficient labour force experience to negligible proportions.

A small proportion of men were not working at the point exactly eight years after entry, some of these had temporarily dropped out of the labour force at this point because they had returned to school, were suffering from illness, were imprisoned, on strike, not looking for work, or for other reasons. However most men were simply unemployed and looking for work. The group without jobs at the point eight years after entry was fairly large, comprising 9.9% of the whites and 8.3% of the blacks. Even using this output point, a small number of college graduates had not experienced eight years labour force activity. Indeed, the higher percentage of whites for which no exact value was found was a reflection of their somewhat greater ages at entry. Excluding men without eight years experience around six percent of the whites and seven percent of the blacks had no jobs at this exact point.

For these individuals, the jobs held closest to this point were entered in place of the precisely defined job. About half the jobs substituted fell within six months of the exact eight year point, another third were between seven and twenty-four months away, while the remainder, for about two percent of the total population, were more than two years from the point eight years after entry. The use of this substitution resulted in outcome variables defined for the entire sample and it prevented the potentially biasing effect of non-randomness among the missing cases and also slightly cut down on the random error. With this methodological problem out of the way we now move on to a description of respondents' educational attainment eight years after entry into the labour force.

Education Eight Years After Entry

Though almost no changes in educational attainment took place in the first two years after entry, in the six years following that some change did occur. Table 1 shows the distribution of education for whites and blacks at entry and eight years later. At entry, 15.4% of the whites and 24.9% of the blacks had no high school and these proportions fell only slightly in the next eight years. Thus men who entered with very little education were unlikely to improve their standing much in subsequent years. This was not so much the case for those entering with some high school--the proportion of men in this category dropped from 21.1% to 15.6%, from 35.2% to 31.3% for blacks. The percentage of white high school graduates remained constant for whites while it increased very slightly for blacks in this period. For both races the number of men with some college increased during this eight years, from 9.9% to 11.6% for whites, from 6.5% to 7.9% of the total black population. The number of white college graduates rose by almost fifty percent in these eight years. At entry 10.7% of the whites had college degrees, compared to a total of 15.6% eight years later. The analogous proportions for blacks were only 3.4% and 4.3%.

This discussion of the educational attainment distributions tells us very little about the changes that took place at the individual level. Scoring education on the zero to ten scale at entry and eight years later allows the use of continuous variable techniques in describing this change. The correlations between educational attainment at these two points were very high, 0.898 for whites and 0.945 for blacks. Education at entry is a slightly poorer predictor of education eight years later for blacks

TABLE 1

THE DISTRIBUTION OF EDUCATIONAL ATTAINMENT AT ENTRY AND EIGHT YEARS LATER, BY RACE

	WHITES		BLACKS	
Educational Attainment	At Entry	Eight Years Later	At Entry	Eight Years Later
No High School	15.4%	14.1%	24.9%	24.8%
Some High School	21.1	15.6	35.2	31.3
High School Graduation	42.9	42.9	30.0	31.7
Some College	9.9	11.6	6.5	7.9
College Graduation	10.7	15.6	3.4	4.3
Number of Cases	850	850	738	738

than for whites. The resulting regression equations had the forms:

for whites; education at 8 years = 0.955 education at entry +.661 units

for blacks; education at 8 years = 0.963 education at entry +.524 units

The gap between whites and blacks widened during this period, from 0.86 units of education to 0.97 units. The average rose by around half a unit for whites, increasing to a level well above high school graduation, the blacks average rose by around a third of a unit of education until it was halfway between the some high school and high school graduation categories.

Let us now examine the changes that took place among the men at each level of educational attainment at entry (shown in Table 2). Over a quarter (26.8%) of the whites added one or more years of schooling to their totals in these eight years, compared to only 11.6% for blacks. Some of these changes were more important than others, even in terms of the limited eleven category educational attainment category which does not allow us to see very small changes, like that from nine to ten years schooling. One way of judging the importance of these changes in education is to examine the numbers of them which resulted in individuals moving from one of the five major education categories to another, like from some high school to high school graduation.

With this criterion, 58.6% of the changes made by whites, and 56.0% of those made by blacks were "significant". The remainder involved changes within these main categories, like

TABLE 2

CHANGES IN EDUCATIONAL ATTAINMENT BETWEEN ENTRY INTO LABOUR FORCE AND EIGHT YEARS LATER BY RACE

Race	Educational Attainment At Entry	% Making Some Change	% Obtaining Some H.S.	% Obtaining H.S. Grad	% Obtaining Some Coll	% Obtaining Coll Grad	Number of Cases
Whites	No H.S.	11.4%	2.9%	5.2%	0.0%	0.7%	132
	Some H.S.	27.9		22.9	5.0	0.0	179
	H.S. Grad	34.0			8.5	4.7	365
	Some Coll	28.9				28.9	83
	Coll Grad	16.5					91
	TOTAL	26.8	0.5	5.6	4.7	4.9	850
Blacks	No H.S.	0.5%	0.5%	0.0%	0.0%	0.0%	184
	Some H.S.	11.5		11.2	0.0	0.4	260
	H.S. Grad	22.1			5.5	1.8	221
	Some Coll	4.2				4.2	48
	Coll Grad	16.0					25
	TOTAL	11.6	0.1	3.9	1.6	0.9	738

finishing another year of elementary school and obtaining some vocational training. Among those entering with no high school, 11.4% of the whites obtained some more training, a total of 5.9% graduated from high school. Only 0.5% of the blacks entering with this little education made any change. Among those entering with some high school, 27.9% of the whites but only 11.5% of the blacks received high school diplomas in the subsequent eight years.

A third of the white high school graduates obtained some more schooling after entry, compared to just over a fifth of the blacks. For both races, the majority of these changes were only the result of obtaining some vocational training; 8.5% of the whites who entered with high school diplomas completed some college and 4.7% obtained college diplomas within eight years of entry, the comparable proportions for blacks showed that 5.5% completed some college and 1.8% graduated from college. Over a quarter of the whites who entered with some college obtained degrees in eight years compared to only 4.2% of the blacks. A sixth of the college graduates of each race increased their levels of education during the eight years.

The most important result of these changes was in the numbers of individuals that completed important units of schooling in the eight years after entry by obtaining high school or college diplomas. The rates of completion for men that entered with some high school or some college were far higher for whites than blacks; the proportion of whites was twice as large in the case of men entering with some high school, and almost six times larger for those that entered with some college. Changes over this eight year period further widened the gap that existed between whites and blacks at entry. In three important aspects of these changes, the proportions of individuals escaping from the no high school category and in the numbers completing high school and college, blacks were significantly worse off than whites. Blacks were less likely to return to school than whites and once they returned were less likely to derive significant benefits from their additional schooling.

Average Prestige Scores and Wages

The average prestige scores and wages of the job held eight years after entry for blacks and whites at each of the five main educational attainment levels are tabulated in Tables 3 and 4. In both cases the corresponding averages for the first jobs after entry and for the jobs held one and two years after entry are included for comparison.

Within each of these categories the average occupational prestige score rose in the eight years following entry, though the size of this increase varied between one and ten points, according to the race and education level. The most interesting of the race differences occurred at the lowest levels of education. At entry, the average prestige score of whites with no high school was 22.7, compared to a value of 21.4 for blacks.

TABLE 3

AVERAGE PRESTIGE SCORES FOR THE FIRST JOB AFTER ENTRY, AND ONE, TWO, AND EIGHT YEARS AFTER ENTRY, BY EDUCATIONAL ATTAINMENT AND RACE

	No High School		Some High School		High School Graduation		Some College		College Graduation	
	W	B	W	B	W	B	W	B	W	B
Average Prestige of Entry Job	22.7 (131)	21.4 (184)	26.5 (178)	23.9 (258)	28.3 (363)	26.0 (221)	32.7 (82)	29.9 (48)	46.0 (90)	38.5 (25)
One Year Later	22.6 (131)	21.4 (184)	27.3 (176)	24.2 (256)	29.8 (364)	27.7 (219)	33.1 (84)	31.2 (49)	48.6 (91)	39.2 (25)
Two Years Later	23.1 (130)	21.6 (184)	29.1 (174)	24.5 (255)	31.0 (368)	28.5 (220)	34.5 (84)	31.4 (49)	48.6 (92)	42.1 (25)
Eight Years Later	27.3 (119)	22.4 (183)	32.5 (132)	25.7 (231)	36.1 (365)	29.7 (234)	41.0 (99)	36.0 (58)	55.1 (33)	48.6 (32)
Difference Between Entry and Eight Years Later	4.6	1.0	6.0	1.8	7.8	3.7	8.3	6.1	9.1	10.2

TABLE 4

AVERAGE WAGES* AT START OF THE FIRST JOB, AND ONE, TWO AND EIGHT YEARS AFTER ENTRY, BY EDUCATIONAL ATTAINMENT AND RACE

	No High School		Some High School		High School Graduation		Some College		College Graduation	
	W	B	W	B	W	B	W	B	W	B
Average Wage at Entry	$149 (93)	$142 (134)	$230 (121)	$200 (175)	$249 (276)	$222 (169)	$272 (55)	$281 (29)	$354 (69)	$294 (18)
Wage One Year Later	155 (89)	148 (137)	239 (112)	213 (168)	270 (229)	244 (146)	304 (44)	339 (27)	390 (62)	321 (14)
Two Years Later	191 (89)	155 (135)	263 (98)	224 (160)	296 (192)	261 (115)	346 (46)	364 (28)	431 (64)	362 (15)
Eight Years Later	313 (91)	257 (158)	381 (103)	341 (194)	445 (305)	388 (191)	494 (85)	438 (50)	627 (118)	528 (28)
Difference Between Starting Wage of First Job and the One Held Eight Years Later	164	115	151	141	196	166	222	157	273	234

*In Dollars/month.

In the next eight years the average rose by 4.6 points to 27.3 for whites but only by 1.0 point to 22.4 for blacks! A similar result was found for men with some high school for whom the average prestige score increased from 26.5 to 32.5 for whites, but only from 23.9 to 25.7 for blacks. At these lower levels of education the gap between whites and blacks widened considerably in these eight years.

White high school graduates' average prestige scores increased by 7.8 points and blacks' by only 3.7 points and this resulted in an increase in the difference between the white and black averages from around two points at entry to six points eight years later. The difference between whites and blacks with some college only widened by an additional two prestige points and for college graduates it diminished by around one point in this period.

Eight years after entry, the average prestige differences between whites and blacks with the same amounts of education varied between five and eight points, with the largest differences at the higher education levels. In this period the gap had widened considerably at the lower levels of education but did not change much for the some college and college graduation groups. After eight years in the labour force the jobs of blacks with no high school and some high school had not appreciably improved, while whites with these low levels of education made significant prestige gains.

Without exception the average prestige increments within each education category varied directly as the level of education. For whites the range was from the 4.6 point increase for men with no high school up to the 9.1 point rise experienced by white college graduates. The range was even larger for blacks, men with no high school experienced an increase of only 1.0 point compared to a 10.2 point change for college graduates. The magnitudes of these changes bore a curvilinear relationship to education for blacks but was quite linear for whites.

The equivalent wage statistics showed much less systematic variation, though the same kinds of relationships appeared. The starting wages of the first jobs held after entry for whites and blacks with no high school were very similar but a considerable gap developed in the eight years after entry. By this point there was a quite constant difference between the average wages of whites and blacks in each of the five education categories of around $50 per month. Over this period the salaries of whites with no high school increased by an average of $164 per month, those of white college graduates by $273, and those of blacks in these two categories by $115 and $234 per month respectively.

Whites with no high school entered at an average wage of $149 per month compared to $142 for blacks with this little education. Eight years later the whites were being payed an average of $313 per month compared to only $257 for the blacks. At every level of education the difference in average wages of whites and blacks widened over these eight years. These wage averages displayed the same pattern as the prestige scores, though there was more variation within each of the categories for the wage variable.

The Cost of Being Black, Eight Years After Entry

Population estimates of the effect of education and education on wages and prestige scores eight years after entry were obtained by performing a dummy variable regression with the cases weighted to approximate the ratio of blacks to whites in the American population. The results of these regressions are presented in Table 5 and the analogous result with dependent variables describing the first job after entry can be found in Chapter 3, Table 4. The race and educational attainment variables explained 41.7% of the variance in the prestige scores eight years after entry, 23.3% of the variance in the wages.

The regressions performed at this eight year point yielded somewhat different results from those with the entry point variables. The most significant change was in the impact of race. In terms of occupational prestige, the cost of being black (i.e. the difference between whites and blacks, holding educational attainment constant) rose from only 2.2 prestige points at entry to 5.8 points after eight years, the difference between whites and blacks almost tripled in this period. The unique variance due to education also increased from 0.3% at entry to 1.6% at the later point. This latter estimate is very

TABLE 5

DUMMY VARIABLE REGRESSION OF RACE AND EDUCATIONAL ATTAINMENT EIGHT YEARS AFTER ENTRY ON THE OCCUPATIONAL PRESTIGE SCORES, WAGES, AND NUMBERS OF JOBS HELD IN THE EIGHT YEARS AFTER ENTRY

	Variance in occupational prestige	Variance in wage	Variance in number of jobs
Zero-order effects:			
Race	4.9%	1.8%	1.2%
Education	40.1	23.0	2.8
Unique Effect: Race	1.6	0.3	1.1
Education	36.8	21.5	2.7
Overlap	3.3	1.5	0.1
Total Variance Without Interaction	41.7	23.3	3.9
Unique Interaction Variance	0.2	0.2	0.2
Total Variance with Interaction	41.9	23.5	4.1

	REGRESSION COEFFICIENTS		
	In prestige points	In dollars	In numbers of jobs
Effect of being black	-5.8*	-47	-.81*
Education Effects:			
4-7 years	4.2	40	1.21
Elementary school grad	5.3	113	1.23**
Some high school	9.1*	147	1.42**
High school graduation	12.2*	206**	1.66*
Above some vocational	15.0*	217**	1.57*
Some college	17.9*	257*	1.28**
College graduation	29.3*	357*	0.96
Master's degree	34.0*	374*	0.51
Some grad or professional	23.0*	331**	3.36*
Ph.D. or professional	44.7*	812*	0.38

*Different from zero at the .01 level of significance.

**Different from zero at the .05 level of significance, but not at the .01 level.

large when taken in the context of only one-nineth of the population being black. The total variance increased from 31.6% to 41.7%, with most of this change due to the educational attainment variables. The gap between the average prestige scores of whites and blacks was 9.9 prestige points and so sixty percent of the difference (5.8 points) was the result of job discrimination.

The wage regression was very similar, the cost of being black was only $16 per month at entry while eight years later the figure had tripled to $47 per month. The unique variance due to race increased from 0.1% to 0.3% (neither of which was statistically significant). The total variance explained in the starting wage of the first job was 19.0% which climbed to 23.3% by the time eight years later. It is clear that both these regressions provide evidence of a worsening in the relative position of blacks in this time. Just over forty percent of the black-white wage difference was due to job discrimination.

Let us now consider the result of regressing the occupational prestige scores and wages eight years after entry on educational attainment, as measured by the ten dummy variables, for whites and blacks separately. Education explained 39.5% of the variance in whites' occupational prestige scores but only 30.6% for blacks. As of the first jobs after entry, the equivalent values were 31.6% for whites and 19.1% for blacks. Clearly education is a much better predictor of occupational prestige eight years after entry than when men entered. However, most of this increase in predictive ability occurred in the first two years after entry at which point educational attainment explained 36.9% of the variance in white prestige scores, 28.4% for blacks.

At entry, education accounted for 19.2% of the variance in whites' wages but only 12.6% for blacks. By the point two years after entry the results were 18.5% for whites and 21.7% for blacks, and by the point eight years after entry education explained 22.3% of the variance in wages for whites, 17.4% for blacks. Comparing the wage and occupational prestige variables it is clear that while education is a better predictor for whites in both cases, much higher levels of prediction are found for prestige.

Numbers of Jobs Held in These Eight Years

In the eight years after entry into the labour force the average individual changed jobs only twice, though only very small numbers were still holding their first jobs at this point. The distributions of the number of jobs held by men in each of the educational attainment categories are tabulated in Table 6. There was not very much difference among the education categories and between whites and blacks, though the trends that existed were quite systematic. Whites were more likely to switch jobs during this eight year period, as were men with higher levels of educational attainment, though the numbers of jobs held by college graduates was rather lower than expected. Something less than a tenth of the men held only one job in this period,

TABLE 6

NUMBERS OF JOBS HELD BETWEEN ENTRY AND THE TIME POINT EIGHT YEARS LATER BY RACE AND EDUCATIONAL ATTAINMENT AT THAT TIME

	No High School		Some High School		High School Graduation		Some College		College Graduation	
	W	B	W	B	W	B	W	B	W	B
Still holding first job after entry	13.3%	15.3%	6.0%	8.2%	2.4%	3.8%	3.0%	1.7%	7.5%	9.3%
2nd or 3rd	32.4	44.8	31.5	36.7	24.9	43.5	25.2	36.1	33.8	34.3
4th or 5th	29.1	28.9	31.5	42.8	41.0	36.7	47.3	32.6	36.0	43.6
6th or 7th	14.1	7.0	21.7	7.7	20.2	10.6	16.1	25.8	14.2	12.4
8th or later	10.9	3.9	9.1	3.5	12.3	5.2	8.0	3.4	8.2	0.0
Average number held	3.341	2.377	3.669	2.822	3.890	2.961	3.474	3.224	3.127	2.625
Standard deviation of above	2.87	1.99	2.67	1.93	2.22	1.82	1.85	1.76	1.98	1.58
Number of Cases	120	183	133	231	365	234	99	58	133	32

a third or so held two or three jobs, another third four or five jobs, around a fifth held six or seven jobs, and approximately a tenth of them held eight or more jobs in the eight years.

In moving from the no high school category to some college there were steadily decreasing proportions of men still on their first jobs after entry at the eight year point, though this percentage rose somewhat for the college graduates. For whites, 13.3% of the men with no high school were on their first jobs at this point, a proportion that declined to only 3.0% of the whites with some high school. The corresponding figures for blacks were 15.3% of the men with no high school and 1.7% of those with some college. Among college graduates, 7.5% of the whites and 9.3% of the blacks were still on their first jobs.

In order to arrive at quantitative comparisons of the numbers of jobs held the average number of jobs held for men in each of the ten education x race categories were calculated. The largest of the race differences appeared for men with little education. Whites with no high school averaged 3.34 jobs in this period compared to only 2.37 for blacks. This gap narrows considerably for the other groups so that we find whites with some college averaged 3.47 jobs in this period, in comparison with 3.22 jobs for blacks with some college. There was a tendency for blacks with more education to have had more jobs in this period, with again a lower figure for college graduates. The relationship was more curved for whites with high school graduates holding the most jobs followed by men with some high school and those with some college. These patterns are precisely the same ones we have seen arising from an analysis of the durations of the first jobs and of the numbers of jobs held in the first two years after entry.

The race and education differences in the numbers of jobs held in the eight years were not large. The range was only from 3.13 jobs to 3.89 for whites and from 2.37 to 3.22 for blacks among the education categories. A regression of the numbers of jobs on education explained only 2.9% of the variance for whites and 2.1% for blacks. When whites and blacks were combined in the same regression it was found that, holding educational attainment constant, blacks held an average of 0.81 fewer jobs in this period than whites (the gap was close to the difference between averages). But neither of these variables is much of a predictor of the number of jobs held--together they explained only 3.9% of the variance, the unique effect of race accounted for 1.1% of this total. The regression is described in Table 5.

The number of jobs held in the first two years after entry had very little impact on the respondents' wages and prestige scores at that point and this continued to be the case at the point eight years after entry. Regressions were performed with four dummy variables to represent the effect of education at this point and five dummy variables to measure the effect of the numbers of jobs held in this period. The effects were negligible with one statistically insignificant exception. Whites that held only one or two jobs and blacks that held only one job in the eight years after entry had average earnings about fifty dollars per month less than others, holding education constant. The number of jobs held in this period was an unimportant determinant of the prestige and wage outcomes at the end of eight years labour force experience. Even at the extremes, the differences were insignificant; those men with seven or more jobs in this period appeared neither to gain nor lose in terms of prestige or wages for all this job changing!

Military Service in the Eight Years

Over three-fifths of the white respondents and just under one half of the blacks were in the armed forces at some point in the first eight years after entry. Here we examine these data with a view to describing the variations in the proportions experiencing some military service among the different levels of educational attainment and by race and to discovering whether or not the men that served were better or worse off than those that did not.

In Table 7 we present a tabulation of the proportions of men at each of the five levels of educational attainment that served in the armed forces in the first eight years after entry. There were no race differences in the three highest educational categories: almost exactly seventy percent of the high school graduates and those with some college and fifty percent of the

TABLE 7

PERCENTAGE OF RESPONDENTS WITH SOME MILITARY EXPERIENCE IN THE FIRST EIGHT YEARS AFTER ENTRY BY EDUCATIONAL ATTAINMENT AT THIS POINT AND BY RACE

	Whites	Blacks
No High School	37.5% (120)	10.9% (183)
Some High School	58.6 (133)	46.3 (231)
High School Graduation	70.4 (365)	68.4 (234)
Some College	70.7 (99)	69.0 (58)
College Graduation	52.6 (133)	50.0 (32)
TOTAL	61.2 (850)	46.5 (738)

college graduates had served. There were clear differences among whites and blacks with less education. Thirty-seven and a half percent of the whites with no high school eight years after entry had served, compared to only 10.9% of the blacks with no high school. This difference narrowed for men with some high school, 58.6% of the whites had served, versus 46.3% of the blacks. The large numbers of blacks in the lowest categories of education, where the race differences were largest, accounts for the difference in the proportions of whites and blacks that served.

In order to measure the benefits or costs of military service, the wages and prestige scores eight years after entry were regressed on a single dummy variable indicating whether or not a man had been in the armed forces during his first eight years in the labour force and four educational attainment dummy variables. In addition, the average wages and prestige scores in each of the race x education categories were calculated (see Table 8).

Whites with some military service in this period had jobs averaging 1.0 prestige points lower than those with no such service, holding educational attainment constant. Blacks with some such service had jobs averaging 2.0 points above those of the men that did not serve. Neither effect was very large, military service uniquely accounted for 0.1% for the variance for whites, 0.6% for blacks. These summary statistics obscure the interaction that occurred between military service and

TABLE 8

AVERAGE OCCUPATIONAL PRESTIGE SCORES AND WAGES EIGHT YEARS AFTER ENTRY, BY EDUCATIONAL ATTAINMENT EIGHT YEARS AFTER ENTRY, WHETHER OR NOT THE RESPONDENT WAS IN THE ARMED FORCES IN THESE EIGHT YEARS, AND RACE

		Average Prestige Score		Average Wage In Dollars Per Month	
	Any Military Service in First Eight Years?	No	Yes	No	Yes
WHITES	No High School	26.8 (75)	28.1 (44)	313 (65)	314 (26)
	Some High School	31.9 (55)	32.9 (77)	389 (49)	374 (54)
	High School Graduation	36.0 (108)	36.1 (257)	492 (95)	424 (210)
	Some College	41.5 (29)	40.7 (70)	537 (24)	477 (61)
	College Graduation	59.0 (63)	51.7 (70)	705 (56)	615 (62)
	TOTAL	38.1 (330)	37.7 (518)	479 (289)	447 (413)
BLACKS	No High School	22.2 (163)	23.6 (20)	254 (144)	283 (14)
	Some High School	24.5 (124)	27.0 (107)	333 (113)	353 (81)
	High School Graduation	27.4 (74)	30.7 (160)	377 (72)	394 (119)
	Some College	34.9 (18)	36.5 (40)	406 (16)	453 (34)
	College Graduation	52.5 (16)	44.7 (16)	493 (14)	564 (14)
	TOTAL	25.7 (395)	30.5 (343)	320 (359)	392 (362)

education. Military service had a positive effect on the prestige scores of whites with high school graduation or less education while men with some college or more training had lower average prestige scores if they had experienced some military service. Whites with no high school who entered the military in these eight years averaged 28.1 prestige points eight years after entry versus 26.8 for men that did not serve, for those with some high school the corresponding figures were 32.9 points for those that served, 31.9 for those that did not. Military service had no impact on the high school graduates' average scores. A dramatic reversal occurs for whites with some college: those that served had an average score of 40.7, 0.8 points lower than for the group that did not serve. This gap widened considerably for college graduates, men that had some armed forces experience had average prestige scores eight years after entry that were 7.3 points below the 59.0 point average of the men who did not serve!

Thus for whites with some high school or less there was a small prestige advantage to military service, it made little difference to high school graduates and men with some college, and those with college degrees really lost if they entered the armed forces. A similar relationship was found for blacks, only the "break even" point was moved up one level of education. Blacks in the four lowest educational attainment categories, up to and including some college, gained between one and three prestige points by serving. Among college graduates, the men with some military service averaged only 44.7 prestige points for the jobs held eight years after entry, in comparison to the 52.5 point average for men with no such service. The reason why the military service variable explained so little variance in the regression should now be clear...most of the impact of military service is due to its interaction with education.

There was no similar interaction when wage at the point eight years after entry was substituted for prestige in the above analysis, though there was a difference between blacks and whites. At every level of education whites lose income at the point eight years after entry if they have had one or more periods of military service during this time. Blacks uniformly gain income from such service! The regressions show that military service, holding educational attainment constant, lowered white income by $54 per month and raised black income by $26 per month. The unique contributions were 1.0% of the variance for whites and 0.5% for blacks. The gap between the incomes of whites that had such service and those that did not serve widened from zero for men with no high school to $80 per month for college graduates. The same effect was found for blacks, though the directions of the differences were the opposite of those for whites. We should note that while these differences are unmistakeably present, in comparison to the variance explained by educational attainment, military service is a very unimportant variable, accounting for only around a twentieth the variance explained by education.

There was one other possible benefit from military service, increased educational attainment. It is possible for men to increase their levels of education in the course of military service, the armed forces are especially known for the numbers of men they raise to the level of high school graduates and who pass equivalency examinations. Such changes in education were included in the longitudinal education histories obtained. In order to determine the magnitude of this effect a dummy variable measuring if the individual was in the armed forces in his first eight years in the labour force was correlated with the change in education between entry and the point eight years later. The raw correlations were 0.131 for whites and 0.044 for blacks. While the relationship was in the predicted direction for both races, the effect is clearly of negligible magnitude. Men without any military service appeared about as likely as those with some such service to increase their levels of educational attainment in the first eight years after entry.

Prediction of the Change in Educational Attainment

A multiple regression analysis was performed in order to determine what variables were related to changes in educational attainment in the eight years after entry. Only the family background variables were both temporarily and causally prior to educational attainment at entry, and so only these four measures were used to predict education at that point. We know that little change takes place in education in the first two years after entry and that this was probably the result of our stipulation that entry could not take place until the respondent was away from full-time education for a period of more than sixteen months. So by the time most of the changes in this eight year period after entry had taken place most men had been through their first two years labour force experience. Thus the family background variables, pre-entry work experiences, the properties of these first jobs after entry, and the level of education at entry could all have some impact on the change in education.

In order to limit the numbers of variables, only six measures were used to describe the jobs held after entry, the occupational prestige scores and wages at the start of the first job and one and two years after entry. Educational attainment was entered in the form of a single variable with the values zero to ten, while the number of units of change in education was also measured on this scale. The range of the dependent variable was very limited--almost all men were scored zero, only around a quarter of the whites and half that proportion of the blacks had any change in education at all and most of the changes were of small magnitude, one or two units of education. Under these conditions the regression comes to resemble a discriminant function analysis with two categories.

The regression is presented in Table 9. We find that the thirteen variables explained only 5.2% of the variance in the change in education for whites, 11.7% for blacks. It is curious that we were better able to predict changes in education for blacks even though it was possible to explain much more of the variance in educational attainment at entry for whites and despite the smaller variance in the dependent variable for blacks (which would appear to limit the independent variables' predictive ability).

The family background variables uniquely explained around three percent of the variance for whites and blacks. For both races the probability of gaining more education after entry varied as the level of father's education and the relationship was of statistically significant magnitude. This variable also had a considerable indirect effect on the change in education for blacks. The number of siblings in the respondent's household varied inversely as the change in education for whites but this variable had no impact for blacks. The numbers of full-time and part-time jobs before entry had little impact on the change variable. For whites, the family background variables explained more than half the total variance of the thirteen variables. It is significant that these variables, measuring the social class of the family in which the individual was raised, exerted their impact on changes in education even with education at entry and the quality of the jobs near entry held constant.

TABLE 9

REGRESSION OF THE CHANGE IN EDUCATIONAL ATTAINMENT IN THE FIRST EIGHT YEARS AFTER ENTRY, BY RACE

	Regression Coefficient		Standardized Regression Coefficient		Simple Correlation with the Dependent Variable	
	Whites	Blacks	Whites	Blacks	Whites	Blacks
Family Background Variables						
Father's Education	.041**	.037**	.098	.116	.116	.207
Mother's Education	-.005	.023	-.010	.069	.080	.184
Number of Siblings	-.038*	.004	-.135	.027	-.131	-.045
Father's Occupational Prestige	.004	.000	.052	.003	.099	.123
Jobs Before Entry						
Number of Full-time Jobs	-.002	-.033**	-.006	-.080	.008	-.020
Number of Part-time Jobs	.010	.010	.022	.022	.021	.049
Educational Attainment at Entry	-.070*	.030*	-.150	.092	-.007	.162
Prestige Scores of Entry Jobs						
First Job After Entry	-.001	-.002	-.016	-.033	.005	.173
Job Held One Year After Entry	-.001	.006	-.010	.097	.014	.211
Job Held Two Years After Entry	.002	.006	.029	.099	.017	.213
Wages of Entry Jobs						
Starting Wage of First Job	-.0000	-.0014*	-.004	-.337	.069	-.004
Job Held One Year After Entry	.0011*	.0022*	.192	.542	.093	.048
Job Held Two Years After Entry	-.0006**	-.0012*	-.126	-.334	.008	.000
Regression Constant	.487	-.197				
Total Variance Explained	5.17%*	11.67%*				

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level but not at the .01 level.

Educational attainment at entry was not very strongly related to the change in education in the first eight years after entry, though it did have a statistically significant effect. Interestingly, this variable was negatively related to change in education for whites, positively related to the change for blacks! It uniquely explained 0.9% of the variance for whites, 0.5% for blacks. The occupational prestige scores of the first job after entry and of the jobs held one and two years later had absolutely no impact on the change in education when all the other variables were held constant. This was expected for whites where the simple correlation between the change variable and the three prestige measures were all below .02, but not for blacks where the simple correlations were around 0.2.

Precisely the opposite pattern appeared for the wage variables. The zero-order correlations between the change in education and the starting wage of the first job and of the jobs held one and two years after entry were quite small while the corresponding standardized regression coefficients were quite large. The three wage variables uniquely explained 1.5% of the variance in the change in education for whites, 4.8% for blacks. In both cases the wage of the job held one year after entry had the most impact and the change in education varied directly as this wage measure and the other two wage measures had small effects in the opposite direction! Thus it appeared that the starting wage of the first job and the wage of the job held two years after entry compensated for the strong relationship between the wage one year after entry and the dependent variable. There is no obvious explanation of this curious pattern.

The Effect of Entry Jobs on Occupational Prestige and Wages Eight Years Later

There were quite strong relationships between the occupational prestige scores and wages of the jobs held at entry and one and two years later and the values of these variables as defined at the point eight years after entry into the labour force. In general, the parameters defined at the point two years after entry were more closely connected to the eight year measure, followed by those defined at the point one year after entry and then by those describing the first job after entry. These data are found in Table 10.

The occupational prestige of the first job after entry explained 21.4% of the variance in whites prestige scores at the eight year point, compared to a zero-order variance of 16.9% for blacks. For whites the prestige scores one and two years after entry explained significantly more of the variance at this zero-order level, the variances were 25.2% and 29.6%. For blacks the corresponding results were both around twenty percent of the variance. Adding in four dummy variables measuring educational attainment at entry significantly raised these variances. Thus the regression of prestige eight years after entry on the prestige of the first job and educational attainment at entry explained

TABLE 10

THE VARIANCE EXPLAINED IN OCCUPATIONAL PRESTIGE AND WAGES EIGHT YEARS AFTER ENTRY BY THESE VARIABLES DEFINED AT ENTRY AND ONE AND TWO YEARS LATER, WITH AND WITHOUT THE EFFECT OF EDUCATIONAL ATTAINMENT AT ENTRY, BY RACE

Independent Variable	Dependent Variable	Zero-Order Variance		Variance with Educational Attainment Added In		Unique Variance with Educational Attainment Controlled	
		Whites	Blacks	Whites	Blacks	Whites	Blacks
Occupational Prestige: Of First Job	Occupational Prestige Two Years After Entry	21.4%	16.9%	37.3%	32.1%	3.5%	5.3%
1 Year After Entry		25.2	20.8	38.0	33.3	4.3	6.5
2 Years After Entry		29.6	20.4	40.4	32.1	6.7	5.3
Wage: On First Job	Wage Two Years After Entry	16.4%	22.5%	27.5%	29.9%	6.7%	12.6%
1 Year After Entry		21.6	28.0	30.5	33.0	9.7	15.7
2 Years After Entry		52.5	27.8	57.4	32.1	36.6	14.8

37.3% of the variance for whites and 32.1% for blacks. The unique variances of the prestige measure were only 3.5% and 5.3%. With occupational prestige at the point eight years after entry as the dependent variable, educational attainment at entry made a far larger unique contribution than the prestige scores of the first jobs, though the unique variance of the prestige score increased somewhat when the job held two years after entry was included in the regression.

In order to assess the impact of the prestige scores defined at the three earlier time points simultaneously these three variables, and educational attainment at entry, and the change in education were all combined in a regression with occupational prestige as the dependent variable, shown in Table 11. Both the education variables were used in a continuous form (zero to ten scale). The five variables explained 43.6% of the variance for whites and 32.6% for blacks. The unique effects of education were 9.6% and 8.5% and it was clear that some of the impact of this variable was the result of its also being a "cause" of the prestige scores of the jobs held near entry. However, for both blacks and whites the direct effect of education was about twice as large as the indirect effect.

The change in educational attainment had a small effect on the prestige of whites, explaining 2.7% of the variance at the unique level, and essentially none for blacks. All of its impact was "direct" for whites and most of it for blacks. For both

TABLE 11

REGRESSION OF THE OCCUPATIONAL PRESTIGE SCORE (AND WAGE) EIGHT YEARS AFTER ENTRY ON THE PRESTIGE SCORES (OR WAGES) OF THE FIRST JOB AFTER ENTRY AND THOSE HELD ONE AND TWO YEARS AFTER ENTRY, EDUCATIONAL ATTAINMENT AT ENTRY, AND THE CHANGE IN EDUCATIONAL ATTAINMENT IN THE EIGHT YEARS AFTER ENTRY, BY RACE

Independent Variable	Dependent Variable	Standardized Regression Coefficient		Total Indirect Effect		Simple Correlation with the Dependent Variable		Unique Variance	
		Whites	Blacks	Whites	Blacks	Whites	Blacks	Whites	Blacks
Education at Entry		.391	.330	.292	.151	.583	.481	9.6%	8.5%
Change in Education		.164	.130	.002	.098	.166	.228	2.7	0.2
Prestige Score:									
of First Job		.084	.072	.378	.339	.462	.411	0.3	0.1
1 Year After Entry		.003	.162	.499	.295	.502	.457	0.0	0.4
2 Years After Entry		.258	.084	.286	.368	.544	.452	2.0	0.2
TOTAL VARIANCE		43.6%	32.6%						
Education at Entry		.282	.199	.199	.210	.481	.409	6.4	3.1
Change in Education		-.006	.064	-.020	.053	-.026	.107	0.0	0.4
Wage: of 1st Job		-.258	.036	.663	.510	.405	.474	1.9	0.0
1 Year After Entry		-.077	.224	.542	.305	.465	.529	0.2	0.5
2 Years After Entry		.856	.214	-.132	.314	.724	.528	30.2	0.9
TOTAL VARIANCE		61.6%	33.6%						

*Significantly different from zero at the .01 level.

**Significantly different from zero at the .05 level, but not at the .01 level.

races the unique effects of the three prestige independent variables were quite small, amounting to two percent of the variance or less in all cases. The prestige of the job held two years after entry had the largest effect for whites and it explained 2.0% of the variance at the unique level. The effects of the other two prestige measures were negligible for whites, though their indirect effects were very large. The simple correlation between the prestige of the first job after entry and that of the eight year job was 0.462 yet its unique contribution was only 0.3% of the variance. Clearly most of the impact of this variable on the later prestige measure is causally directed through the jobs held one and two years after entry. Most of the effect of the job held a year after entry flows through the prestige at the two year point. These three prestige scores only uniquely explained around three percent of the variance for whites and less than that for blacks. None of the prestige variables had much impact on the blacks' prestige after eight years; prestige one year after entry had the largest impact, but its unique variance was only 0.4%!

In Tables 10 and 11 the results presented above for the prestige variable are also found with the wage eight years after entry as the dependent variable. Educational attainment had less impact on the eight year wage than it did on the prestige score measured at that time. For whites but not for blacks, there was a real increase in the impact of the wage in moving from the measure obtained at the start of the first job to the one taken two years after entry. Controlling on educational attainment, the unique contribution for the starting wages was 6.7% of the variance rising to 9.7% one year after entry and to a startling 36.6% for the wage two years after entry for whites. In the black sample, the unique variance only changed from 12.6% to 15.7% to 14.8% over this two year period. In these cases the unique contributions of the wage measures were larger than those of education, in contrast to the result obtained when occupational prestige eight years after entry was the dependent variable.

The wage eight years after entry was regressed on educational attainment at entry, the change in education over that period, and the three wage variables. The result is in Table 11. The five variables explained 61.6% of the variance for whites and 33.6% for blacks. This difference was mainly due to the enormously high simple correlation between the wages two years after entry and eight years past that point for whites which had the value 0.724. Education at entry explained 6.4% of the variance for whites and about half that for blacks. For whites most of the effect of education was "direct" while for blacks around half of it was mediated through the wages of the first job and the jobs held one and two years after entry. The effect of the change in education was very small for blacks and totally negligible for whites and in each case the zero-order correlation between the change in education and the job held eight years after entry was very small.

The relationships between the three wage variables and the dependent variable were rather similar to the prestige results. For whites the only variable with any significant effect was the wage two years after entry which explained 30.2% of the variance at the unique level. In fact, for whites the regression coefficients for the two first wage measures were negative. For blacks, the wage two years after entry also had the largest effect though in this case it only accounted for 0.9% of the variance in the wage eight years after entry. Most of the effect of each of these three variables was indirect, as was the case with prestige.

Many Variables: The Brute Force Approach

So far we have only dealt with a few simpler measures of the jobs held early in the respondents' careers. We have available a great deal more information about these jobs, like measures of the means used to find them, industry, marital status at the start of the job, etc. By inserting all of these variables in the regression equations, as well as the prestige scores and wages, it will be possible to arrive at some estimate of the significance of all those other variables that describe entry into the labour force.

The occupational prestige score and wage of the jobs held eight years after entry were regressed on four clusters of variables:

1. Five variables were entered in order to describe the pre-entry experiences of the individual, including the social status of the family in which he was raised, and the number of full-time and part-time jobs before entry.
2. Educational attainment at the point eight years after entry was inserted in the form of four dummy variables.
3. The first job was described by thirteen variables, the occupational prestige score and wage of that job, the respondent's marital status, whether or not he made a geographic move before starting the job, the means used to find the job, and the industry of the first job (with military as a separate category).
4. Similarly the job held at the point eight years after entry was described by the means used to find it, its industry, marital status at the start of that job, and a last variable indicating whether or not the individual had been in the armed forces at any point in his first eight years labor force experience.

For convenience these variables are listed in Table 12. In all the rather imposing sum of thirty-one variables were entered in the regression. The prestige results are described in Table 13 and those for wage in Table 15, the partitioning of the variance is in Table 14 for prestige, Table 16 for wage. The prestige variable is treated first.

TABLE 12

THE SETS OF VARIABLES USED IN REGRESSIONS OF MANY VARIABLES ON THE OCCUPATIONAL PRESTIGE SCORES AND WAGES OF JOBS HELD EIGHT YEARS AFTER ENTRY

Set of Variables	Variables Included	Number of Variables in All
1. PRe-entry variables	Both parent's education, father's occupational prestige score, number of full-time and of part-time jobs before entry	5
2. Educational attainment eight years after entry	four dummy variables showing the effects of some high school, high school graduation, some college, and college graduation as compared to the lowest category, no high school	4
3. Entry variables (describe the first job after entry)	the occupational prestige score and wage; marital status at the start of the job; whether a move of over ten miles was made between entry and the start of the first job (military related moves excluded) distance moved, if no move then distance is zero; means by which job was found: two dummy variables, one of which had the value one if the job was found by "direct" means and the other of which showed if the job was obtained by promotion; dummy variable showing if this job was in the armed forces; the industry of the job: five dummy variables comparing manufacturing, transportation, wholesale and retail trades, finance, and business industries to the base category of men in agriculture, mining and construction.	13
4. Jobs held one and two years after entry	same as above except the move variable and the distance of the move were excluded	11
5. Job held eight years after entry	same as above with the prestige and wage variables excluded. In this case the "military" dummy variable measured whether the respondent had any military service in his first eight years in the labour force	9

TABLE 13

REGRESSION OF PRE-ENTRY VARIABLES, EDUCATIONAL ATTAINMENT EIGHT YEARS AFTER ENTRY, VARIABLES DESCRIBING THE FIRST JOB AFTER ENTRY, AND SOME DESCRIBING THE INDIVIDUAL AND THE JOB HELD EIGHT YEARS AFTER ENTRY ON THE OCCUPATIONAL PRESTIGE OF THE JOB HELD THEN, BY RACE.

		Regression Coefficients		Standardized Regression Coefficients		Unique Variance			
		Whites	Blacks	Whites	Blacks	Whites		Blacks	
Pre-Entry Variables									
Father's Education		-0.493	.561	-.070	.084**	.26%)		.32%)	
Mother's Education		.756	-.250	.091*	-.036	.48)		.06)	
Father's Occ. Prestige		.041	-.003	.037	-.003	.09)	.89%*	.00)	.71%
Number of Full-time Jobs		.181	.376	.028	.044	.05)		.14)	
Number of Part-time Jobs		.313	-.605	.041	-.064**	.13)		.33)	
Education									
Some High School		2.88	1.31	.076**	.056	.27)		.16)	
High School Graduation		5.41	3.40	.198*	.146*	1.22)	6.70*	.85)	8.18*
Some College		9.51	8.36	.221*	.208*	2.19)		2.48)	
College Graduation		17.83	17.69	.468*	.332*	5.73)		6.77)	
Entry Variables									
Occupational Prestige		.270	.264	.234*	.217*	3.43)		3.27)	
Starting Wage		-.0061	-.0075	-.060	-.083*	.24)		.56)	
Married		2.21	1.66	.035	.030	.10)		.08)	
Job in Military		-1.20	-.88	-.033	-.030	.06)		.04)	
Moved		-2.97	.00	-.062	.000	.22)		.00)	
Distance of Move		.0044	-.001	.062	-.015	.23)		.01)	
Job Found:	Active	-.94	.88	-.034	.039	.09)	4.64*	.12)	4.23*
	Promotion	-6.68	-6.51	-.047	-.044	.20)		.16)	
Industry:	Manufacturing	.29	.07	.009	.003	.00)		.00)	
	Transportation	- .32	-1.24	-.006	-.017	.00)		.03)	
	Wholesale	2.08	.99	.055	.034	.18)		.08)	
	Finance	-5.43	- .46	-.059**	.006	.29)		.00)	
	Business	-2.09	- .110	-.044	-.032	.11)		.07)	
The Job Eight Years After Entry									
Military in this Period		- .80	.50	-.028	.023	.06)		.03)	
Married		1.93	-.44	.064**	-.020	.36)		.04)	
Job Found:	Active	2.98	.43	.107*	.020	.78)		.03)	
	Promotion	5.72	5.60	.157*	.133*	1.65)		1.46)	
Industry:	Manufacturing	.73	3.07	.024	.128*	.03)	5.45*	.73)	7.75*
	Transportation	1.34	.66	.028	.016	.05)		.02)	
	Wholesale	-3.03	2.56	-.077**	.088**	.34)		.42)	
	Finance	3.95	7.82	.104*	.271*	.59)		3.30)	
	Business	6.71	8.04	.155*	.247*	1.21)		3.25)	
Regression Constant									
Number of Cases		851	738						
Total Variance							47.91%		43.54%

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

All these variables explained 47.9% of the variance in the occupational prestige score of the job held eight years after entry for whites and 43.5% for blacks. The zero-order effect of the pre-entry variables was quite large--just over twenty percent of the variance for whites and half that for blacks. Uniquely they explained only 0.9% and 0.7% of the variance for whites and blacks respectively. Mother's education had the most impact on whites' prestige scores and father's education and the number of part-time jobs were most important for blacks. None of these effects was very large.

Educational attainment eight years after entry explained a great deal of the variance in the occupational prestige at the zero-order level, 36.2% for whites and 28.9% for blacks. Holding all the other variables constant this four variable education cluster uniquely explained 6.7% of the variance for whites and 8.2% for blacks. The most important of these variables were the ones that showed the effect of higher levels of education. The effect of some high school was almost negligible in both cases while the college graduation variable uniquely accounted for 5.7% of the variance for whites and 6.8% for blacks. Education had a steeply increasing marginal utility. For whites a college degree was worth 17.8 prestige points (compared to the no high school reference group), some college was worth 9.5, high school graduation, and some high school 2.9 points. The coefficients for blacks were slightly smaller than these.

For both races only one characteristic of the first job, its occupational prestige score, had any real impact on the occupational prestige of the job held eight years after entry. Of the 4.6% of the variance this cluster of variables uniquely explained for whites, 3.4% was due to the first job prestige. For blacks it accounted for 3.3% of a total unique effect of 4.2% of the variance. In each case the raw regression coefficient was 0.27 so that approximately a quarter of the prestige of the first job is entered in the prediction. The starting wage of the first job after entry had a negative effect (only significant for blacks) on the eight year prestige. The effects of all the other variables describing the first job were negligible.

The last group of variables, nine in number, described the job held eight years after entry when the dependent variable was measured. This cluster uniquely explained 5.5% of the variance for whites, 7.8% for blacks. In both cases the effect of military service in the eight year period was very small, though the signs did reflect the relationships discussed in a previous section: whites with some military service suffered a small prestige loss while blacks that served gained a small amount. Marital status had little effect on the dependent variable.

The way in which the job was located did significantly affect the prestige level of that job. As was the case in the analyses of the first job after entry and those held one and two years after entry, jobs found through "active" means (advertisements, agencies, and direct application) and through promotions had higher prestige scores than those found by family and friends. Whites using direct means found jobs 3.0 prestige points above the base group, compared to a gain of only four-tenths of a point for blacks. For whites the unique variance explained by the variable amounted to 0.8% while for blacks it was insignificantly small. Men who found the jobs held at the eight year point by promotion gained about five and one half prestige points in the prestige of that job and the promotion variable explained 1.5% of the variance at the unique level.

The industry of the job held eight years after entry uniquely explained around six percent of the variance in the occupational prestige score of whites eight years after entry. For blacks the variance was only two percent. The finance and business industries had the highest prestige scores, for both races. Whites in finance had jobs averaging around four points above the base category of men in "agriculture, etc." while those in business averaged 6.7 points above this base group, the corresponding results for blacks were 7.8 and 8.0 prestige points respectively. Whites in the transportation, manufacturing, and "agriculture, etc." industries had approximately the same prestige scores while those in the wholesale and retail trades have average scores three points above them. Blacks in manufacturing and wholesale and retail trades had scores about three points above those in "agriculture, etc."

The variables that described the first job after entry, with the exception of the prestige score of that job, had no impact on the job held eight years after entry. While it is clear that the industry and means of finding a job have a quite strong impact on the prestige of the specific job they describe, they appear to have no impact beyond the ending point of that job. This tallies with our finding that the industry and job finding variables describing the first job after entry only had a significant impact on the jobs held one and two years after entry in those cases where a man was still on his first job at these points in time.

The partitioning of the total explained variance in the prestige eight years after entry is presented in Table 14. The patterns for blacks and whites are very similar. Most of the differences appear to be the result of the smaller zero-order variance explained by the pre-entry variables for blacks. So the proportions overlapping between this cluster and educational attainment and among these two and the first job were much larger for whites than blacks. There was slightly more multicolinearity among the independent variables for whites, but the difference was very small.

What if we substitute a set of variables describing the job held one year after entry or the job held two years after entry for those describing the first job after entry and perform the regression again? The partitioning of the variance explained

TABLE 14

PARTITION OF THE VARIANCE IN OCCUPATIONAL PRESTIGE OF THE JOB HELD EIGHT YEARS AFTER ENTRY AMONG PRE-ENTRY VARIABLES, EDUCATIONAL ATTAINMENT AT THIS POINT, THE EFFECT OF VARIABLES DEFINED AT OR NEAR ENTRY, AND THE VARIABLES DESCRIBING THE JOB HELD AT THE EIGHT YEAR POINT, BY RACE.

Pre-Entry Variables	Education Eight Years After Entry	Which Previous Job	Military, Means of Finding Job, Industry, Marital Status, All Eight Years After Entry	Effect of First Job After Entry		Effect of Job Held One Year After Entry		Effect of Job Held Two Years After Entry	
				Whites	Blacks	Whites	Blacks	Whites	Blacks
1				.89%	.71%	.69%	.56%	.59%	.71%
	1			6.70	8.18	5.58	7.30	5.16	7.65
		1		4.64	4.23	4.34	4.57	6.62	4.64
			1	5.45	7.75	5.06	7.19	4.24	7.94
1	1			3.93	.77	2.25	.64	2.01	.58
1		1		.39	.49	.59	.64	.69	.49
1			1	-.16	.21	-.19	.19	.07	.19
	1	1		3.62	5.00	4.76	5.88	5.18	5.53
	1		1	3.40	3.21	2.62	2.23	2.01	2.34
		1	1	.30	.82	.69	1.38	1.51	.63
1	1	1		6.35	1.93	8.01	2.06	8.25	2.21
1	1		1	1.83	1.07	.86	.49	.69	.58
1		1	1	.21	.47	.24	.49	-.02	6.49
	1	1	1	2.91	4.20	3.67	5.18	4.28	5.07
1	1	1	1	7.48	4.50	8.44	5.08	8.61	-1.01
TOTAL VARIANCE				47.91%	43.54%	47.61%	43.88%	49.89%	43.95%

in these regressions is also presented in Table 14. The results are almost identical to the ones presented above. The total explained variance increases slightly so that for whites the regression that included the cluster describing the jobs held two years after entry explained 49.9% of the variance in the prestige eight years after entry and for blacks the result was 44.0% of the variance (as compared to 47.9% and 43.5% for the first job variables). The variables describing the job two years after entry explained a little more of the variance than did those that described the first job after entry.

The regressions above were repeated using the respondent's income eight years after entry as the dependent variable and is described in Table 15 with thepartitioning of the variance in Table 16. Remarkably, the entire set of variables explained 31.5% of the variance in whites' wages and 37.1% for blacks! The wages of blacks eight years after entry were significantly more predictable than those of whites, in marked contrast to their greater predictive power for whites' occupational prestige scores.

Again the pre-entry variables had little impact by the time point eight years after entry. The zero-order variance explained by this cluster of variables was 14.8% for whites and 7.8% for blacks; at the unique level the variances were only 1.0% for whites and 0.8% for blacks. The differences between these variances were mainly taken up in the overlapping effects of the

TABLE 15

REGRESSION OF PRE-ENTRY VARIABLES, EDUCATIONAL ATTAINMENT EIGHT YEARS AFTER ENTRY, VARIABLES DESCRIBING THE FIRST JOB AFTER ENTRY, AND SOME DESCRIBING THE INDIVIDUAL AND HIS JOB EIGHT YEARS AFTER ENTRY ON THE WAGES OF THE JOB HELD THEN, BY RACE.

	Regression Coefficients		Standardized Regression Coefficients		Unique Variance			
	Whites	Blacks	Whites	Blacks	Whites		Blacks	
Pre-Entry Variables								
Father's Education	5.57	-4.15	.042	-.040	.09%)		.07%)	
Mother's Education	-5.62	10.71	-.035	.097**	.18)		.48)	
Father's Occ. Prestige	- .47	0.62	-.022	.044	.03)	1.00**%	.14)	0.75%
Number of Full-time Jobs	11.81	0.28	.098*	.002	.56)		.00)	
Number of Part-time Jobs	6.12	-2.07	.043	-.014	.14)		.02)	
Education								
Some High School	-6.8	30.3	-.010	.084**	.00)		.37)	
High School Graduation	23.0	44.1	+.044	.123*	.06)	0.71	.60)	2.47*
Some College	46.6	76.5	+.058	.124*	.15)		.88)	
College Graduation	93.9	158.2	.131**	.193*	.45)		2.30)	
Entry Variables								
Occupational Prestige	.311	- .70	.143*	-.038	1.29)		.10)	
Starting Wage	.542	.515	.286*	.373*	5.52)		11.34)	
Married	114.1	-34.8	.097*	-.021	.76)		.04)	
Job in Military	-34.6	34.8	-.050	.077	.13)		.28)	
Moved	60.1	45.1	.067	.082	.26)		.23)	
Distance Moved	- .160	- .095	-.121*	-.090	.87)		.28)	
Job Found: Active	-9.1	27.2	-.017	.080**	.02)	10.65*	.51)	14.84*
Promotion	-65.4	-51.1	-.025	-.023	.05)		.04)	
Industry: Manufacturing	-20.7	-11.4	-.033	-.028	.06)		.05)	
Transportation	-82.4	5.6	-.078	.005	.46)		.00)	
Wholesale	+15.3	9.6	.022	.022	.03)		.03)	
Finance	-73.9	-40.0	-.043	-.035	.15)		.10)	
Business	74.1	22.7	.083**	.044	.39)		.12)	
The Job Eight Years After Entry								
Military in This Period	-15.0	7.5	-.028	.022	.06)		.03)	
Married	31.2	17.3	.055	.050	.27)		.23)	
Job Found: Active	35.3	1.5	.068	.005	.31)		.00)	
Promotion	76.6	79.2	.112*	.122*	.84)		1.23)	
Industry: Manufacturing	-50.4	29.8	-.089**	.081	.37)	2.36*	.29)	3.42*
Transportation	-11.1	7.2	-.012	.011	.01)		.01)	
Wholesale	-75.1	-19.9	-.101*	-.045	.60)		.11)	
Finance	-32.7	8.2	-.046	.019	.12)		.02)	
Business	-93.4	-35.6	-.115*	-.071	.66)		.27)	
Number of Cases	851	738						
Total Variance						31.52%		37.14%

*Significantly different from zero at the .01 level.
**Significantly different from zero at the .05 level, but not at the .01 level.

pre-entry variables, educational attainment eight years after entry, and the effect of the first job and secondly in the overlap among all four clusters of variables. For whites the only one of the five variables in this cluster that had a significant impact was the number of full-time jobs before entry and for blacks only mother's education had much effect. Both these variables were positively associated with the wage of the job held eight years after entry, when all the other variables were held constant.

Perhaps the most unexpected of the effects was that of educational attainment. These four dummy variables accounted for 14.9% of the variance in the wage eight years after entry, compared to 17.1% for blacks. However, at the unique level education only explained 0.7% of the variance for whites and 2.5% for blacks! The differences between these variances were mostly made up in the portions of the variance common to educational attainment and the first job variables, to these two and the pre-entry variables, and among all four of the clusters. The value of each unit of education above the no high school category was greater for blacks than whites. For example, a college degree was worth $158 per month in wages to a black man, only $94 per month to his white counterpart, with of course all the other variables held constant. High school graduation was worth $44 to blacks and only $23 per month to whites. These effects are very small, though the relationships among the different levels of education are quite consistent. The size of these coefficients and difference between blacks and whites are of course related to the variance estimates.

For both blacks and whites the variables describing the first job after entry had a very large impact on the respondents' later wages. The unique variances of this cluster, 10.7% for whites and 14.8% for blacks were unusually large. In each case the most important variable was the starting wage of the first job after entry; it made unique contributions of 5.5% and 11.3% of the variance for whites and blacks respectively. The raw regression coefficients were approximately 0.5 for both races so that one half the starting wage of the first job is added into the prediction of the wage eight years after entry.

A number of other variables in the cluster describing the first job after entry had statistically significant effects on the wage outcome, though these coefficients appeared to be rather ynsystematic. For whites, the following variables resulted in increased earnings at the eight year point: higher occupational prestige of the first job, being married at the start of this job, not having moved between entry and the start of the first job, and finding the first job in the business industry. Only finding first jobs by "active" means had an effect on blacks' wages.

The nine variables that described the specific job held eight years after entry uniquely explained 2.4% of the variance in the wage of that job for whites and 3.4% for blacks. The effect of experiencing some military service in the eight years after entry added $8 per month to the wages of blacks and cost whites $15 per month. Both these results were very similar to those found above when only the educational attainment variables and the military service indicator were entered in a wage regression. Men who were married at the eight year point had jobs averaging $31 more per month than those who were single for whites and $17 per month for blacks. As was the case in the prestige regression, whites that found their first jobs by active means obtained better jobs, by $35 per month, than those using family and friends. The equivalent difference for blacks was very small. Both blacks and whites who found their jobs at the point eight years after entry through promotions had jobs paying around eighty dollers per month more than those in the base category. The industry of this job accounted for around one and a half percent of the variance for whites and about a third that for blacks (none of the regression coefficients was significant for blacks). Among the white population, men in the wholesale and retail trades earned $75 less than those in the base group (the "agriculture, etc." industry), those in business $93, and men in manufacturing $50 less per month in wages eight years after entry.

The substitution of a number of variables describing the jobs held one or two years after entry did bring about marked differences in these wage regressions. The variance explained using the first job after entry for whites was 31.5% for whites and this increased to 32.6% using the job held one year after entry, and to 58.8% using the one held two years after entry. The increase in the variance from 37.1% to 41.5% over the two years for blacks was much less marked. This did little to change the partitioning of the variance except for the fact that the unique variance of the cluster of variables describing the job near entry increased remarkably, for whites. For blacks there was almost no change when the variables describing the job held a year and two years after entry were used in regression. The partitioning of these variances is shown in Table 16.

There was a remarkable contrast between the regressions describing the wages and those describing the occupational prestige scores of the jobs held eight years after entry. Educational attainment was strongly related to the prestige of the job but had little impact on its wage. This suggests that the trend found in looking at jobs in the first two years after entry, which showed that prestige scores were limited by men's education and skills while a variety of situational factors affected income, holds even more strongly at the eight year point. The very large proportion of the wage variance explained by the wage of the first job suggests that historical factors play an important part in determining wages at any point and that men that started out with low paying jobs, compared to the average for men with the same level of education, were not very likely to improve their situations. The prestige scores of men at entry

TABLE 16

PARTITION OF THE VARIANCE IN WAGES OF THE JOB HELD EIGHT YEARS AFTER ENTRY AMONG PRE-ENTRY VARIABLES, EDUCATIONAL ATTAINMENT AT THIS POINT, THE EFFECT OF VARIABLES DEFINED FOR CERTAIN JOBS NEAR ENTRY, AND THE VARIABLES DESCRIBING THE JOB HELD AT THE EIGHT YEAR POINT, BY RACE.

Pre-Entry Variables	Education Eight Years After Entry	Which Previous Job	Military Means of Finding Job, Industry, Marital Status, All Eight Years After Entry	First Job After Entry		Job Held One Year After Entry		Job Held Two Years After Entry	
				Whites	Blacks	Whites	Blacks	Whites	Blacks
1				1.00%	.75%	.60%	.77%	.45%	.51%
	1			.71	2.47	.60	1.92	.81	1.86
		1		10.65	14.84	11.75	17.48	37.94	19.16
			1	2.36	3.42	1.84	2.78	1.44	4.12
1	1			1.25	.69	.54	.25	.25	.19
1		1		2.26	.67	2.66	.65	2.81	.91
1			1	-.02	-.09	.01	-.06	-.06	-.02
	1	1		2.06	4.72	2.17	5.27	1.96	5.33
	1		1	.11	.52	-.07	-.01	-.29	-.12
		1	1	.18	.48	.70	1.12	1.10	-.22
1	1	1		6.78	2.78	7.49	3.22	7.78	3.28
1	1		1	.05	.20	-.01	.02	.19	.05
1		1	1	.21	-.04	.18	-.07	.26	-.11
	1	1	1	.68	2.94	.86	3.47	1.08	3.58
1	1	1	1	3.24	2.79	3.30	2.97	3.10	2.94
TOTAL VARIANCE				31.52%	37.14%	32.62%	39.78%	58.81%	41.46%

and eight years later were not nearly so strongly connected. Other variables also describing the first job after entry also were of more importance in determining wages than prestige scores at the eight year point. Neither of these variables were significantly affected by the social class of the individual's family or his pre-entry work experiences. The impact that these variables did have was mediated through factors closer in time to the point eight years after entry.

In all the regressions there was a remarkable uniformity in the results obtained for blacks and whites. There was almost no difference in the relative impacts of the different clusters of variables on the prestige scores and wages of the jobs held eight years after entry into the labour force. These similarities are in marked contrast to the differences in the entry period behaviour of whites and blacks.

Summary

In the eight years after entry into the labour force the differences in job quality between whites and blacks with the same levels of educational attainment become more marked. At entry there were only small differences between the wages and prestige scores of jobs held by whites and blacks with low levels of education, though blacks with higher levels of educational attainment were significantly disadvantaged. In the next years this deficit spreads to men with lower levels of education too. Eight years after entry, blacks with some high school are only slightly better off than those with no high school while whites with even this low level of education are able to make some prestige and wage gains in the eight years. Even though the "cost of being black" increased measureably in this period, the differences between whites and blacks with the same level of education were far smaller than those among men with different levels of education.

In marked contrast to the measurably widening in the gap between whites and blacks in the eight years after entry, there developed a remarkable uniformity in the way in which job quality was related to other variables. While very different processes appeared to be involved in determining the prestige scores and wages of jobs held just after entry, by the time men had been at work for eight years these differences no longer existed.

In almost all the literature the impact of entry is measured only by taking the quality of the job held at that point, without much consideration of the industry of that job and other variables describing the entry process. While there has never been any proof that wages or prestige scores at this point were sufficient indicators of the long term impact of entry, we have shown that this is the case. Other variables describing the first job had essentially no impact on later jobs. This statement was strictly true for the prestige variable, some other factors do appear to have some effect on the wages of later jobs, but their impact is really very small. There is a fairly rapid increase in the predictive ability of wages and prestige scores when they are defined as points slightly after the first job, especially for wages.

While it is not possible to prove this to be the case, on the basis of the data here, the selection of an "output" measure based on chronological age (for example by using the occupational prestige score and wage of the job held at age thirty) is likely to produce results very similar to the ones here. Most job mobility takes place in the first few years of labour force experience and the use of prestige scores and wages at say age thirty, would not be likely to change the results here. It would just mean that some men, especially those with lower levels of educational attainment, would have had more than eight years labour force experience.

CHAPTER IX

CONCLUSIONS

The intent of this analysis was to describe the manner in which American men entered the labour force, to discover the factors that influenced the numbers and quality of the jobs they held in this period, and to assess the significance of these jobs in the larger context of their careers as a whole. Each chapter has concluded with a summary and it is our purpose here to draw these findings together into a number of generalizations about entry into the labour force and the American social structure rather than to reiterate the facts of the case. These themes cross-cut one another and are presented in a convenient order and not necessarily in order of importance.

Settling in to Work

While the conventional wisdom sees entry into the labour force as a particularly trying and uncertain time in men's careers there was little evidence of this in the data, though we had only behavioral measures of labour force activity and no information about men's subjective perceptions of entry. The durations of the first jobs men held were quite long and few individuals spent more than three or four months in finding these first jobs. Furthermore there were no marked differences in the relationships among the variables describing the jobs men held just after entry and those based on jobs held later in individuals' careers. Thus while educational attainment at entry was a somewhat poorer predictor of the occupational prestige at entry than was education eight years after entry of the job held then, the differences between these levels of prediction was not large.

In the first two years after entry the jobs men held came more into line with their expectations of the jobs they should hold on the basis of their skills, or at least into line with what we calculate should be the levels of their jobs. Thus the "settling in" that occurs in the first years after entry into the labour force appears mainly to consist of a movement of men from jobs that were below their realistic levels of expectation, based on their educational attainment and other characteristics, into better jobs, even if this implied entering the armed forces. In other words, outliers move closer to the regression lines.

This adjustment takes place very quickly, mostly within a year after entry and almost all of it within two years after entry. For this reason the job held two years after entry was a much better indicator of future jobs than the first job after entry. At a more general level, a comparison of the analyses of jobs held close to the entry point and the job held eight years after entry, reveals quite similar findings.

The Differences Between Blacks and Whites

At almost every point in this analysis we find that blacks are worse off than whites. The later the point of comparison, the larger the gap becomes; so that blacks enter the labour force with less educational attainment that whites and on top of this deficit are not as successful as whites in turning the education they do have into good quality jobs. This should come as no surprise. A study like this one, based on a relatively small number of cases, can add very little to the more accurate statistics describing the nature of these differences that can be found in Census and unemployment statistics. What it can do is to insert a dimension of process into the static measures of race differences usually presented.

Unfortunately our longitudinal records do not include information on the childhood experiences of our respondents, so the first important indicator of these race differences was in the respective levels of educational attainment of blacks and whites at the point they entered the labor force. These measures are used as inputs into the construction of other parts of the entry process. We do have a strong indication that occupational differences between whites and blacks appear well before entry. An investigation of the part-time and full-time jobs held before entry into the labor force revealed that blacks were approximately half as likely to hold such jobs as whites and also that the jobs blacks held were of lower quality than those of whites.

In the course of this research it has become clear that the differences in the jobs held by blacks and whites cannot be understood in terms of a single dimension of job quality. The two measures of the quality of jobs used here, occupational prestige and wages, display rather dissimilar patterns of race differences.

Holding constant the level of educational attainment, the differences between the wages of whites and blacks at entry are quite small, the gap was only significant at the higher levels of education. During the eight years after entry there was a trend for the wage differences to extend to even the lowest levels of education though the gap does not widen by very much. The average wage of blacks at the start of their first jobs was 0.314 standard deviations below the white mean and this only increased to 0.423 after eight years. However the occupational prestige gap between whites and blacks was 0.375 standard deviations for the first job and it almost doubled to 0.717 standard deviations at the eight year point.

The biggest difference between whites and blacks was in the occupational prestige scores of their jobs. Especially at low levels of education, the wage differences were quite small. These differences arise from a number of factors, only some of which we were able to deal with. It is clear that blacks were less likely to get promotions than whites, that they tended to be concentrated in those industries with poorer jobs, that they were less likely than whites to receive on-the-job training, and that when they received such training it was likely to be of worse quality. Though we had no market-side data there was some evidence that the structure of the labour market was such that blacks with low levels of education were able to locate jobs about as well as whites with the same levels of education but that well educated blacks found it far more difficult to find jobs than their white counterparts.

While the race differences were very systematic, race had far less impact on job quality than did educational attainment. The differences between blacks and whites were small compared to the ones between high school graduates and college graduates. Of course it is not quite fair to make this sort of comparison or to compare job measures with educational attainment held constant, for race also figures into the differences between the educational attainment levels. Around half the gap in the prestige and wage levels of whites and blacks appeared to be the result of job discrimination and the other half was due to unequal educational opportunity.

Perhaps the most interesting finding bearing on the differences between whites and blacks was that relating to the development of these differences. If we examine the average change in wages and occupational prestige for whites and blacks in moving from the first job after entry to the second, the two sets of values are almost exactly the same. Thus the gain made in moving from the first to the second job did not vary across race. However what did vary was the duration of the first job. Blacks held their first jobs on an average of a year longer than whites. So the change in moving between the first and second jobs was spaced out over a longer period for blacks. Part of the deficit that is built up by blacks in the years after entry is the result of their spending much longer times on their jobs than whites, a factor that limits their chances of mobility. This is echoed in other parts of the data--for both races men that were married tended to have far longer job durations than single men, however the gap between single and married mens' durations was twice as large for blacks as whites. Similarly a change in wage of a fixed size will prolong the jobs of blacks by more than twice as long a period as it will for whites.

Education, Occupational Prestige, and Wages

Education, occupational prestige and wages were the three most important and frequently used variables in the study. Irrespective of the point at which the dependent variable was measured and of race, educational attainment had a stronger impact on occupational prestige than on wage. The impact of education on prestige persisted much farther on into men's careers than its effect on wage. Eight years after entry, the effect of education on wage was close to zero when the wages of the jobs held near entry were held constant (hence all of the effect of education flowed through these earlier wage measures). In terms of the prestige eight years after entry there was still a considerable direct effect of education.

In all of the regressions of occupational prestige on education, the impact of the latter had a characteristic curvilinear pattern that resulted from the increasing marginal utility of additional units of education. This pattern was found for both whites and blacks. The impact of education on income was neither as strong nor as nonlinear as for the prestige variable.

There are important implications to the differences between the effects of education on occupational prestige and wage. The most obvious one concerns the relative probability of mobility along each of these dimensions. The weaker relationship between educational attainment and wages means a man with a low level of education has much more of a chance of finding a high paying job than he does of finding one with a high occupational prestige score.

While wages are less tied to education than is the case for prestige, a number of variables appear to be more strongly related to the wage variable, among them region of the country, pre-entry work experience, and making geographic moves. Thus a move from one region of the country is a relatively reliable way for a man to obtain increased wages, though he is unlikely to change the prestige score of his occupation. The wage variable is thus subject to regional variation to an extent that is not true for the prestige variable. The only reliable way for a man to obtain increased occupational prestige is for him to get more schooling.

Changing Jobs

This last conclusion brings us to a discussion of the reasons why men change jobs, though in a round-about fashion. Holding education constant the main variable which individuals can hope to maximize is their wages...and they do. We showed that it was possible to explain the reasons why men stayed on their jobs (and hence the reason why they left them) with only a few variables, chief among which was the change in wage over the period of the job.

There were two sets of influences on the length of mens' jobs. The largest was a situational factor, a quality of the specific job held and not of the individual. These wage effects are of this first kind. The second factor comprises a number of qualities of the individual, like his educational attainment and marital status. We found that single men and men with higher levels of education changed jobs most frequently.

Only in one context did changing jobs appear to have much impact on the mens' prestige scores or wages. In the first two years after entry, men with low prestige or low wage jobs left those jobs, either to find better ones or to enter the armed forces. However, in the long run the numbers of jobs had no impact on either the prestige scores or wages of job. We were not able to detect any evidence of an underlying tendency for men to hold jobs of characteristic duration. Men appeared to change jobs almost entirely on the basis of the specific work situation of each job.

Other Variables

A number of variables had some impact on the prestige scores and wages of the first jobs obtained after entry, including the industry of the job, the means by which it was found, and whether or not the respondent moved to location of the job. While each of these affected the job held at a specific point, once the individual left the job they described their impact dropped to zero. Thus while the fact that a man's second job was in the transportation industry does influence the wage and prestige score of that job (holding all other factors constant), the fact that the man's first job was in agriculture would have no effect beyond the point of the first job. In the long term the only variables that had any impact on later jobs were occupational prestige scores and wages of the earlier jobs.

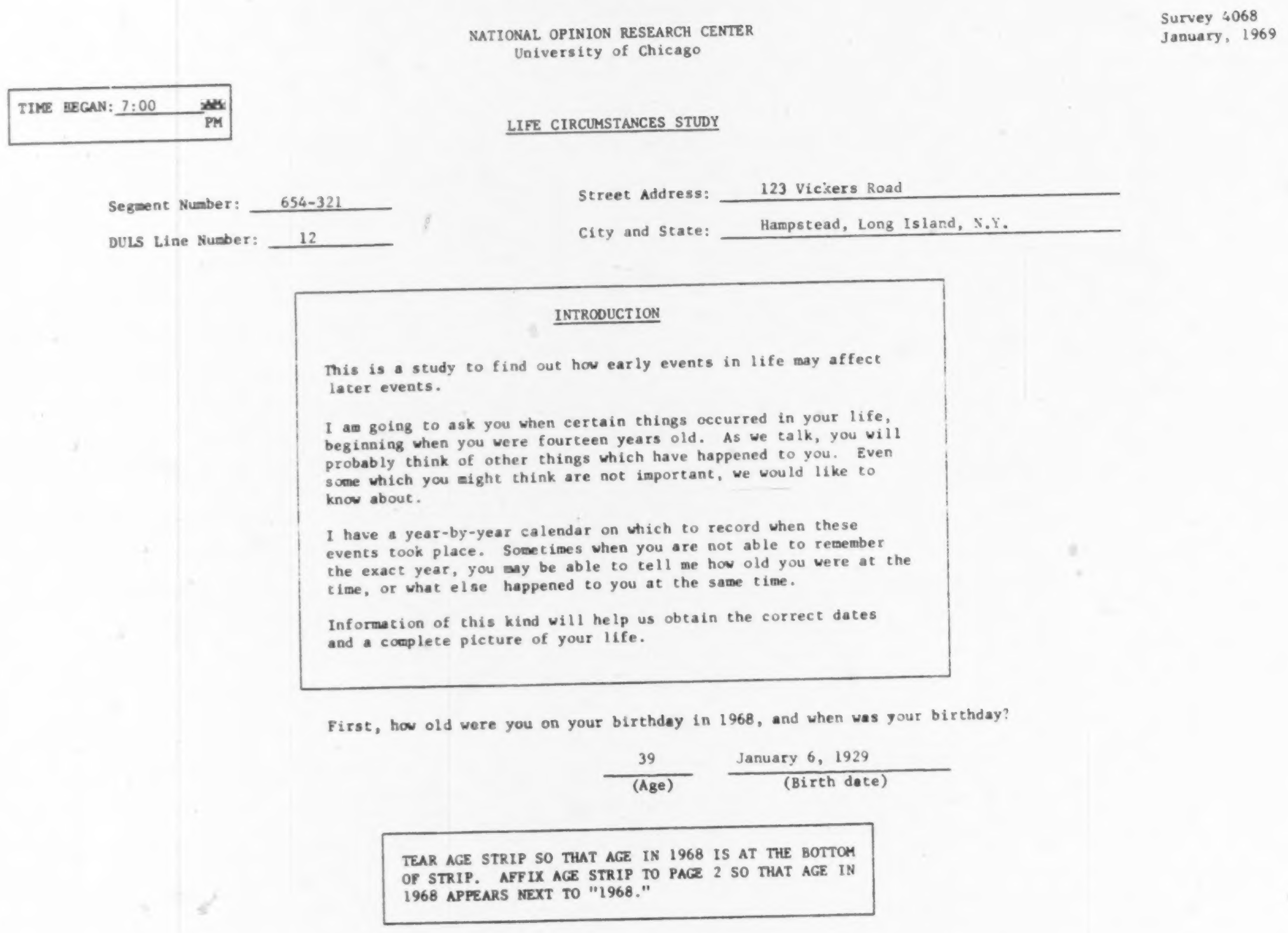
One group of variables was conspicuous by its lack of impact. While the four family background variables explained a considerable amount of variance in the respondents' educational attainment at entry, they had little effect beyond that point, all of their impact was apparently channeled through the educational attainment variable.

Further Research

There appear to be two ways to make qualitative improvements on the quality of the research on entry into the labour force, one involves the collection of a somewhat different set of data while the other is more a conceptual change. The first is quite simple: probably the greatest weakness of this analysis lies in the fact that it has lumped together men with a wide variety of levels of educational attainment levels and who enter at quite different chronological ages and looked at their first jobs all together. Combining all these groups in a single set of cases for a regression involves very strong assumptions about the non-interaction of age at entry and education at entry with the other variables. The way to avoid this would be to use the style of analysis that was applied to studying whites and blacks here. A separate sample would have to be collected for each major level of educational attainment, and for blacks and whites, and separate regression analyses would be performed for each of them. One would hope to have approximately equal numbers of individuals in each race x education category in order to minimize the variance in comparisons. This would avoid the sorts of comparisons where there were tiny numbers in specific cells (like black college graduates).

The more theoretical improvement would involve attempting to match up the behaviour of individuals with the labour market, looking perhaps at the kinds of companies men find jobs in and their specific geographic locations. It is clear that individuals do not control many aspects of the way in which they find jobs and that once they have found a job the characteristics of the institution in which they are employed will also affect wages and promotions and the like.

APPENDIX A



Survey 4068
January, 1969

NATIONAL OPINION RESEARCH CENTER
University of Chicago

TIME BEGAN: 7:00 ~~AM~~ PM

LIFE CIRCUMSTANCES STUDY

Segment Number: 654-321

DULS Line Number: 12

Street Address: 123 Vickers Road

City and State: Hampstead, Long Island, N.Y.

INTRODUCTION

This is a study to find out how early events in life may affect later events.

I am going to ask you when certain things occurred in your life, beginning when you were fourteen years old. As we talk, you will probably think of other things which have happened to you. Even some which you might think are not important, we would like to know about.

I have a year-by-year calendar on which to record when these events took place. Sometimes when you are not able to remember the exact year, you may be able to tell me how old you were at the time, or what else happened to you at the same time.

Information of this kind will help us obtain the correct dates and a complete picture of your life.

First, how old were you on your birthday in 1968, and when was your birthday?

39 (Age)

January 6, 1929 (Birth date)

TEAR AGE STRIP SO THAT AGE IN 1968 IS AT THE BOTTOM OF STRIP. AFFIX AGE STRIP TO PAGE 2 SO THAT AGE IN 1968 APPEARS NEXT TO "1968."

Figure 1

INTERVIEWER: ALWAYS INDICATE STOPPING POINT BY END OF ARROW.

Year	Age	1. FULL TIME EDUCATION (a) Month	(b) Name and/or type of school	(c) Degree/ highest gr.comp.	2. FULL TIME EMPLOYMENT OR UNEMPLOYMENT (Ask 11-a "Support," for unempl.) (a) Month	(b) Occupation	(c) Industry	Wages (d) In $ Beg. Amt.	Wages (d) In $ End'g Amt.	(e) In kind F=food H=hous'g	(f) Hrs/ wk	(g) Left Job: O=own decision N=not own decision	(h) At termination: H=had new job K=knew of job N=neither	(i) Got Job thru: Fr=Friends Fa=Family Pu=Pub.ag. Pr=Priv.ag. A=Ads O=Other	(j) On-the-Job Training (incl. apprentice trng.) How long? Never? ☐
1943	14		Barker Elem.												
1944	15	June Sept	Barker Cons. HS	8 9											
1945	16	June Sept	St. Louis, Public HS #5	10											
1946	17	Sept	↓ Oct	10	Nov Dec	Unemployed (see note p. 3) Attendant	Gas Station	.75 hr			40			A	
1947	18				Apr-July	↓ Stock Clerk Army (see 5.)	↓ Dept. Store	.80 hr	.75hr .80		40	N N	N N	Pu	
1948	19														
1949	20														
1950	21														
1951	22				Feb	Driver	City Bus Co.	1.10 hr			40			A	Driver Training 3 weeks
1952	23														
1953	24	Sept	City College of New York		Aug	↓	↓		1.30 hr		40	O	N (see note)		
1954	25														
1955	26	June	↓	BA (business)	June	Salesman	Levin Bros. Soap Mfg.	$6,000 yr			42			O	Management Training Program - 6 weeks
1956	27														
1957	28														
1958	29				Aug	↓ Area Supervisor	↓ O. Sedar Brush Co.	$8,250 yr	$7,500 yr		40 40-45	O	H	O	
1959	30														
1960	31														
1961	32														
1962	33														
1963	34														
1964	35				Feb	↓			$11,000 yr		40-45	N leave of absence for illness	N		
1965	36				March	Office Manager		$12,000 yr			45-50			back to same job	
1966	37														
1967	38														
1968	39					↓	↓								
Current						Office Manager	O. Sedar Brush Co.	$13,000 yr			45-50				

Figure 1

INTERVIEWER: ALWAYS INDICATE STOPPING POINT BY END OF ARROW. USE 2-A ONLY IF R HAD MORE THAN TWO JOBS IN GIVEN YEAR & ALWAYS GO BACK TO P.2 FOR NEXT YEAR.

(k) Name of Union Never? ☒	2-A FULL TIME EMPLOYMENT OR UNEMPLOYMENT: (Ask 11-a "Support," for unempl.) (a) Month	(b) Occupation	(c) Industry	Wages (d) In $ Beg. Amt.	End'g Amt.	(e) In kind F= food H=hous'g	(f) Hrs/wk	(g) Left Job: O=own decision N=not own decision	(h) At termination: H=had new job K=knew of job N=neither	(i) Got Job thru: Fr=Friends Fa=Family Pu=Pub.ag. Pr=Priv.ag. A=Ads O=Other	(j) On-the-Job Training (incl. apprentice trng.) How long? Never? ☐	(k) Name of Union Never? ☐	Year
		(walking cart)		(got commission)									1947
	Jul-Sept	Ice Cream Seller	Dairy-Ice Co.	$50 wk	$60 wk		50 est	O	K	Fr			
	Sept-Dec	Laborer	Hiway Const. Co.	$1 hr	$1 hr		40	N	N	Pu			1947

NOTES

Nov. 1946 R looked for work without success after quitting school. He dropped out after repeating 10th grade for a month.

Aug. 1953 R stopped working full-time for Bus Co. in order to give full time to his studies, but cont'd to drive bus on a part-time basis.

Figure 1
(continued)

USE THIS PAGE FOR EXTRA NOTATIONS BUT ALWAYS INDICATE YEAR AND COLUMN TO WHICH NOTE APPLIES.

Year	
1943	Col. 12 - R not sure if actual rent was paid or part of sharecropper arrangement
1944	
1945	
1946	
1947	
1948	
1949	
1950	
1951	Col. 4 - R was half-time student for a few years, worked toward B.A.
1952	
1953	
1954	
1955	
1956	
1957	
1958	
1959	
1960	
1961	
1962	
1963	
1964	
1965	
1966	
1967	
1968	
Current	

Figure 1 (continued)

INTERVIEWER: ALWAYS INDICATE STOPPING POINT BY END OF ARROW.

3. PART-TIME EMPLOYMENT: Never? ☐					4. PART-TIME EDUCATION: Never? ☐				5. MILITARY SERVICE:		Never? ☐	6. OTHER FULL-TIME ACTIVITIES:	
(a) Month	(b) Occupation	(c) Industry	(d) Wages	(e) Hrs/Wk	(a) Name and/or type of school	(b) Month	(c) Degree Diploma Certificate or Course	(d) Tuition R=Self E=Empl. O=Other	(a) Draf./Enl. Long. Stay Pl. of Dis.	(b) Beginning & ending rank	(c) Education Never? ☐	Major Illnesses? Travel? Etc.?	Year
													1943
													1944
													1945
													1946
									Dec.-	Priv.			1947
									drafted		G.E.D. H.S.diploma		1948
									Georgia				1949
									Dec.-Mo.	Corporal			1950
					City College of New York	Sept.	Business Major	0	Ft. Leonard Wood				1951
								0					1952
						Aug.		0					1953
Sept.	Bus Driver	City Bus Co.	$1.30 hr	30									1954
↓ Feb. Feb.-May	 Library Asst.	 Univ. Library	 $1.40 hr $1.25 hr	 20 25									1955
													1956
													1957
													1958
													1959
													1960
													1961
													1962
													1963
												Feb.-Tuberculosis	1964
												↓ March	1965
													1966
													1967
													1968
													Current

Figure 1 (continued)

INTERVIEWER: ALWAYS INDICATE STOPPING POINT BY END OF ARROW.

Year	7. FAMILY HISTORY (a) Month & Marital Status	(b) Wife's age at marri-age	(c) Children M=male F=female Mo.of birth	(d) Birth control dur.mar. Never? ☐	8. WIFE'S EDUCATION Degree or highest gr.comp. at mar.&since	9. WIFE'S EMPLOYMENT (during marriage to R.): Never? ☐ (a) Month	(b) Occupation	(c) Industry	(d) Wages	(e) Hrs/wk	10. HOUSEHOLD COMPOSITION: Relationships	11. INCOME ADEQUACY: S=Save C=Comfort, no save M=Manage D=Need out-side help	(a) Public Support Share of total income A=All M=More than ½ H=About half L=Less than ½ N=None	Kind of Support
1943											Mother, Step-father, 2 Bros., Aunt	M		
1944														
1945											(June) Mother, Step-father, 2 Brothers	↓		
1946	Nov married	16		no	10th gr						(Nov) Wife and above family	D (family)		
1947			M-July								(June) Wife (July) Wife + Son (Dec) Military	M C		
1948						Jan	Cleaning Lady ↓	Gov't Hosp. ↓	.65 hr .80 hr	40				
1949						Dec	Sales Clerk	10¢ Store	.85 hr	40	↓	↓		
1950	↓										(Dec) Wife + son	M		
1951	June divorce			↓		June	↓	↓	↓	↓	(Jan) alone	M	L	G.I. Bill (Sep
1952														
1953											↓			
1954											(July) Roommate		↓	
1955	↓										↓	↓	L	↓ (June)
1956	July married	23		yes	A.S.	July	Journalist	Daily News Paper	$5,000 yr	40	(July) Wife	C		
1957				↓ no										
1958			F-May	–		Feb	↓	↓	$5,250 yr	40	↓ Wife + daughter (May)			
1959			F-Sept	–							↓ " + 2 daughters (Sept)			
1960				yes								↓		
1961												S		
1962														
1963											↓			
1964						Sept	Journalist	Daily News Paper	$7,500 yr	35	Wife, 2 daughters, Mother-in-law	↓		
1965												C (illness)		
1966												↓ S		
1967														
1968	↓													
Current	married			↓			↓	↓	$9,300	↓	↓	↓		

Figure 1 cont.

INTERVIEWER: ALWAYS INDICATE STOPPING POINT BY END OF ARROW.

12. HOME DETAILS (a) Month	(b) Type	(c) # Rooms	(d) Own/Rent/ Share-no rent	(e) Neighborhood AW=all white MW=mostly white HH=about ½ & ½ MNW=mostly non-wh. ANW=all non-white	13. WHERE LIVING (a) City/Town	(b) County	(c) State	(d) RF RNF	(e) Month	Year
	House	3	R *see p.4	Rural - no neighborhood	---	Barker	Miss.	RF		1943
										1944
June	Apt.	4	R	ANW	St. Louis		Mo.		June	1945
										1946
June Dec.	Apt. Barracks	2 -	R -	ANW -	Army				Dec.	1947
										1948
										1949
Dec.	Apt.	3	R	ANW	St. Louis	Barker	Mo.		Dec.	1950
Jan. June	Apt. Apt.	1 1	R R	ANW HH	Newark New York	-	NJ NY		Jan. June	1951
										1952
										1953
										1954
										1955
July	Apt.	2	R	HH						1956
										1957
May	Apt.	4	R	MW						1958
										1959
Oct.	House	7	O	MW	Hampstead	Long Island Nassau	NY		Oct.	1960
										1961
										1962
										1963
										1964
										1965
										1966
				HH						1967
										1968
	↓			↓	↓					Current

Figure 1 (continued)

We've asked you about your life history in the preceding questions. Now we have some general questions about your background.

14. Where were you born?

Milk Junction (City Town) Barker (County) Mississippi (State)

IF FOREIGN BORN: In what year did you come to this country? 19 --

15. How many brothers and sisters did you or do you have, all told?

2 Brothers 0 Sisters

16. A. What was the last year of schooling that your father completed?

3rd Grade

(If Education is for father substitute, check ☒ and specify relationship: Step-father)

B. What was the last year of schooling that your mother completed?

6th Grade

17. A. When you were 14, what kind of work did your father do?

OCCUPATION: Sharecropper (laborer)

INDUSTRY: Agriculture - cotton

(If occupation is for father substitute, check ☒ and specify relationship: Step-father)

IF NO FATHER & NO SUB. AT R'S AGE 14, CHECK BOX ☐

B. What kind of work did your mother do, when you were 14?

OCCUPATION: Domestic

INDUSTRY: Private homes

18. Around the time you were 14, would you say your family was:
- Very happy ☐
- Somewhat happy ☐
- Somewhat unhappy ☒
- Very unhappy ☐

19. ASK FOR WHITES ONLY:

A. What is the main nationality in your mother's background?

____

B. What is the main nationality in your father's background?

____

20. A. In what religion were you brought up?

Baptist

B. Is (religion in A) your religion now, or do you have a different religion now?

Same ☐ Different ☒

IF DIFFERENT NOW:

C. What is your religion now? Episcopalian

D. When did you change? 19 56

21. Did you vote in the last Presidential election?

Yes ☒ No ☐

IF YES:

A. For whom did you vote?

Humphrey

22. What was the year of the first election in which you voted? 19 52

(Check box ☐ if never voted.)

23. A. In thinking back about your life, what are the major things, good or bad, that have happened in your life which changed it in a way you did not expect? (PROBE: How did that change your life? What other major things changed your life in a way you didn't expect?)

B. INTERVIEWER: AFTER RECORDING R'S RESPONSES IN A, CROSS THRU IN BOX EACH OF THE "LIFE AREAS" HE MENTIONED; THEN ASK Q. 23 SPECIFICALLY FOR EACH "LIFE AREA" NOT YET MENTIONED.

Life Areas to be covered:
- Family life
- Job/career
- Education
- Military (unless had none)
- Major moves

The Army X I began to see a lot of different places and different kinds of people X I learned the importance of being educated and finished H.S., then I went to college on the G.I. Bill.

My second marriage X She had always had advantages X She helped me to live with other people X Well, not being so mad about my own lousy childhood X and she's great to live with X The crucial point was when the man from O. Sedar offered me a job. He knew I wasn't moving up fast enough at Levier Bros. X The best thing about moving was getting out of Mississippi X that's all.

24. We would like to know something about how people go about guessing words that they do not know. HAND RESPONDENT CARD. On this card are listed some words--you may know some of them and you may not know quite a few of them.

On each line there is a word in capital letters--like BEAST. Then there are five other words. Tell me the number of the word that comes closest to the meaning of the word in capital letters. If the word in capital letters is BEAST, you would say "4" since "animal" comes closer to "beast" than any of the other words. If you wish, I will read the words to you. These words are difficult for almost everyone--give me your best guess if you're not sure of the answer. CIRCLE THE ANSWER GIVEN BELOW.

SPACE	1 school	2 noon	3 captain	[✓ 4 room]	5 board	9 NA
BROADEN	1 efface	2 make level	3 elapse	4 embroider	[✓ 5 widen]	9 NA
CAPRICE	1 value	2 a star	3 grimace	[✓ 4 whim]	5 inducement	9 NA
EDIBLE	1 auspicious	2 eligible	[✓ 3 fit to eat]	4 sagacious	5 able to speak	9 NA
ANIMOSITY	[✓ 1 hatred]	2 animation	3 disobedience	4 diversity	5 friendship	9 NA
PACT	1 puissance	2 remonstrance	[✓ 3 agreement]	4 skillet	5 pressure	9 NA
CLOISTERED	1 miniature	[✓ 2 bunched]	3 arched	4 malady	5 secluded	9 NA
EMANATE	[✓ 1 rival]	2 come	3 prominent	4 free	5 populate	9 NA
ACCUSTOM	1 disappoint	2 customary	3 encounter	[✓ 4 get used to]	5 business	9 NA
ALLUSION	1 reference	2 dream	3 eulogy	[✓ 4 illusion]	5 aria	9 NA

INTERVIEWER: CHECK ONE BOX BELOW:

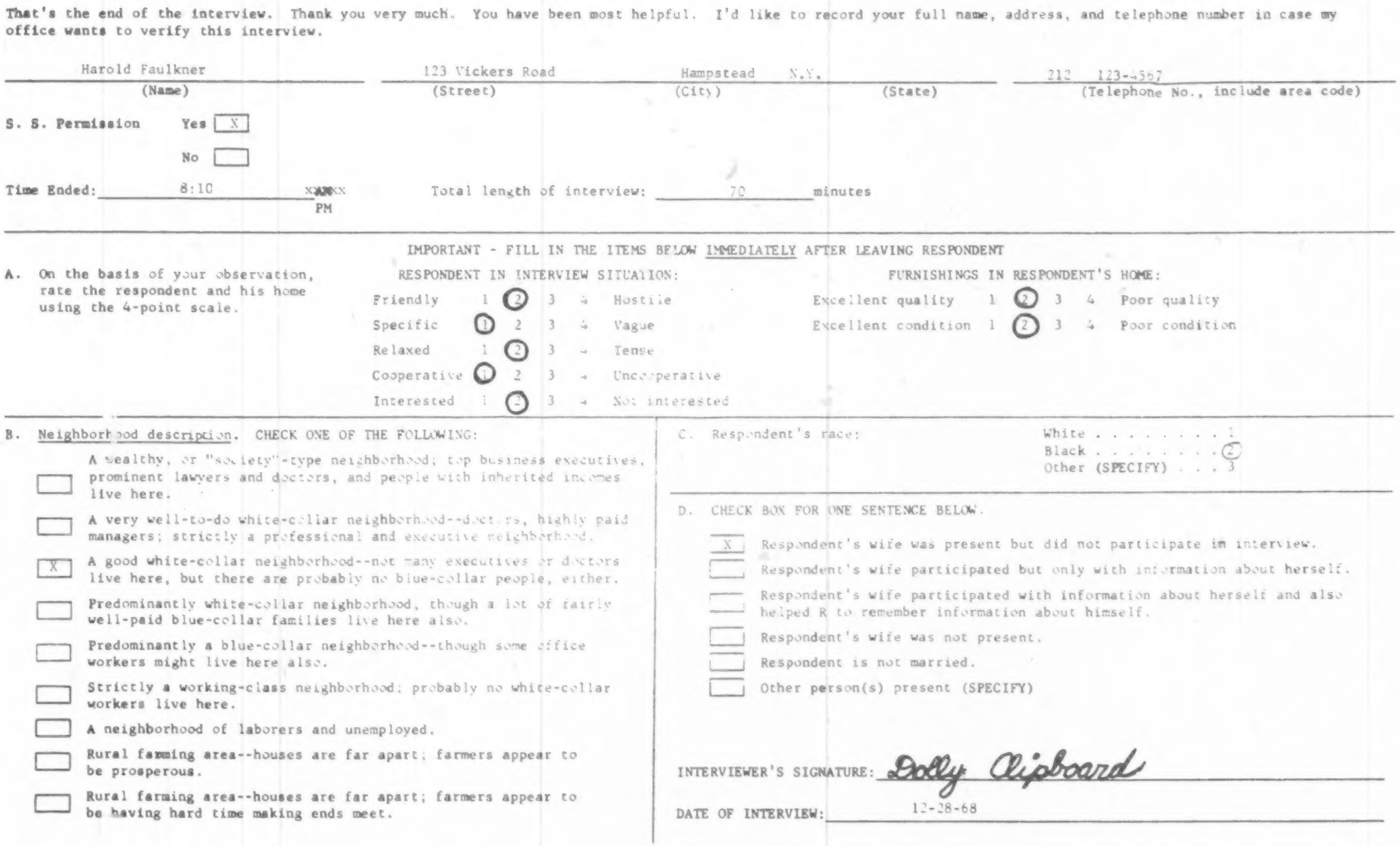
R read words in Q. 24 himself ☒

You read words in Q. 24 to him ☐

25. Social Security Number:

636-84-4026

Figure 1 (contintued)



That's the end of the interview. Thank you very much. You have been most helpful. I'd like to record your full name, address, and telephone number in case my office wants to verify this interview.

Harold Faulkner	123 Vickers Road	Hampstead	N.Y.	212 123-4567
(Name)	(Street)	(City)	(State)	(Telephone No., include area code)

S. S. Permission **Yes** ☒

No ☐

Time Ended: 8:10 ~~AM~~ PM

Total length of interview: 70 minutes

IMPORTANT - FILL IN THE ITEMS BELOW IMMEDIATELY AFTER LEAVING RESPONDENT

A. On the basis of your observation, rate the respondent and his home using the 4-point scale.

RESPONDENT IN INTERVIEW SITUATION:

- Friendly 1 [✓ 2] 3 4 Hostile
- Specific [✓ 1] 2 3 4 Vague
- Relaxed 1 [✓ 2] 3 4 Tense
- Cooperative [✓ 1] 2 3 4 Uncooperative
- Interested 1 [✓ 2] 3 4 Not interested

FURNISHINGS IN RESPONDENT'S HOME:

- Excellent quality 1 [✓ 2] 3 4 Poor quality
- Excellent condition 1 [✓ 2] 3 4 Poor condition

B. Neighborhood description. CHECK ONE OF THE FOLLOWING:

- ☐ A wealthy, or "society"-type neighborhood; top business executives, prominent lawyers and doctors, and people with inherited incomes live here.
- ☐ A very well-to-do white-collar neighborhood--doctors, highly paid managers; strictly a professional and executive neighborhood.
- ☒ A good white-collar neighborhood--not many executives or doctors live here, but there are probably no blue-collar people, either.
- ☐ Predominantly white-collar neighborhood, though a lot of fairly well-paid blue-collar families live here also.
- ☐ Predominantly a blue-collar neighborhood--though some office workers might live here also.
- ☐ Strictly a working-class neighborhood; probably no white-collar workers live here.
- ☐ A neighborhood of laborers and unemployed.
- ☐ Rural farming area--houses are far apart; farmers appear to be prosperous.
- ☐ Rural farming area--houses are far apart; farmers appear to be having hard time making ends meet.

C. Respondent's race:

- White 1
- Black . . . . [✓ 2]
- Other (SPECIFY) . . . 3

D. CHECK BOX FOR ONE SENTENCE BELOW.

- ☒ Respondent's wife was present but did not participate in interview.
- ☐ Respondent's wife participated but only with information about herself.
- ☐ Respondent's wife participated with information about herself and also helped R to remember information about himself.
- ☐ Respondent's wife was not present.
- ☐ Respondent is not married.
- ☐ Other person(s) present (SPECIFY)

INTERVIEWER'S SIGNATURE: Dolly Clipboard

DATE OF INTERVIEW: 12-28-68

Figure 1 (continued)